# The Iron A

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A Review of the Hardware, Iron and Metal Trades.

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METALLURGICAL NOTES.

The Theory of the Crucible Steel Process.

A recent edition of Iron has the following translation of an article published by Prof.
A. Ledebur in Stahl und Eisen:

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ES.

There is not another of the more important metallurgical processes which has been more neglected by investigators than the manufacture of crucible steel. The reasons for this neglect are various. Many manufacturers suppose that the protection afforded by the crucible to the molten metal is sufficient to render any important chemical change impossible. Many smaller works also carry on their operations quite empirically, and do not trouble themselves either about the chemical composition of the charge or that of the finished cast steel. Large establishments, however, which base their operations on chemical examination, for reasons unknown to me prefer to surround their manufacture of crucible steel with a kind of secrecy, even if they open their other departments most obligingly to the inspection of visitors and to scientific investigation. Even the smallest crucible steel works often believe themselves bound to imitate the example of their larger competitors in this respect. As is well known, MM. Troost and Hautefeuille have shown that silicon is reduced by carbon from crucibles containing silicic acid, and conveyed to the iron. It may be considered as proved that silicon partially prevents the liquid iron from secreting gases in solidifying, and in this respect is beneficial. The process discovered by MM. Troost and Hautefeuille undoubtedly facilitates the obtaining of close castings in crucible melting; but few reliable data have as yet been published as to how far external conditions—especially the composition of the crucible and the composition of the charge—act upon the reduction of silicon in the erucible and the composition of the crucible and the composition of the charge—act upon the reduction of silicon in the erucible and the reduction of silicon in the crucible and the composition of the charge—act upon the reduction will be greatest if plumbago crucible are employed. The following information supplied by a friend confirms this theory: Equal charges, consisting of 30 per cent. of carbon, 0.392 per ce

self-evident that the duration of melting and the temperature must also influence the reduction of silicon.

As regards the behavior of manganese in crucible melting, it has been recently proved by various examinations of other processes that the presence of manganese in iron may be an effective means of reducing silicon, if opportunity is given for the protoxide of manganese formed to become saturated with silicic acid and there be a high temperature. If spiegeleisen is melted at a high temperature If spiegeleisen is melted at a high temperature in a cupola, with a lining holding silicie acid, it absorbs silicon, while manganese is eliminated, and the spiegel may be changed into into gray pig iron. If gray iron be melted repeatedly in the cupola, the more manganese it contains the longer it will remain gray—that is to say, it will lose its silicon the more slowly. It may therefore be assumed that in melting cast steel in the crucible it. that in melting cast steel in the crucible it would turn out all the richer in silicon the richer the charge was in manganese. In order to practically test this theory, at my request two charges of different percentages of manganese were melted under the same of manganese were metted under the same conditions in a large cast-steel manufactory. One charge consisted entirely of hearth steel, containing 1.29 per cent. of carbon, o.01 per cent. of silicon (probably a constituent of the cinder), o.12 per cent. of manganese and 98.50 per cent. of iron. The second charge consisted of similar hearth steel, with the addition of 2 per cent. of ferromanganese, with 4.70 per cent. of carbon. manganese, with 4.70 per cent. of carbon, 2.07 per cent. of silicon, 46.54 per cent. of manganese and 46.48 per cent. of iron Thus the second charge contained altogether 1.34 per cent. of carbon, 0.05 per cent. of silicon, 1.01 per cent. of manganese and 97.56 per cent of iron. The crucibles used contained in both cases about 39 per cent. of carbon. The ingots received and analyzed

by me contained C. St. Mn. Per cent. Per cent. Per cent ut the addition of ferromanganese. 1.34
With the addition of
ferromanganese... 1.86 0.94 -0.15 0.40 0.75

maining in the steel promoted the reduction of the silicon through the carbon of the cru-

nace. The hearth is supported upon wheels journaled in depending bearings which travel upon inclined track-ways. This arrangement permits of the displacement of the hearth for all operations of charging and repairing. While conversion is going on in the furnace the casting side of the hearth is supported in its position by a plunger playing in a hydraulic cylinder. After conversion the casting side of the hearth is raised and lowered as need be for withdrawing the metal in the desired quan-Furnace.

Furnace.

Mr. C. M. Ryder, of Chester, Pa., has obtained a patent for a new form of open-bearth furnace, which seems to embody some twery ingenious and useful improvements.

The object of this improved form is to adapt the open-hearth furnace to general foundry use, and simplify all operations of casting on in the furnace the casting side of the hearth is supported in its position by a plunger playing in a hydraulic cylinder.

After conversion the casting side of the hearth is raised and lowered as need be for withdrawing the metal in the desired upon inclined track-ways.

This ar
The object of this improvements.

The object of this improvements.

The object of this improvements.

After conversion the casting side of the hearth is raised and lowered as need be for

most radical change embodied in this furnace is the raising and lowering of the hearth. By this means a perfect control is had over the metal, which can be tapped in large or small quantities, as desired.

Drilling Machines for the Russian Government,

In the annexed engravings we present two drilling machines of special character, which have recently been constructed by an English firm, Messrs. William Collier & Co., of Salford, for the Russian Government, for use in their dockyard at Nicolaieff. The engravings, together with the following par-

reignavings, together with the tollowing par-ticulars, are taken from our English contem-porary, the Mechanical World: Fig. 1 represents a horizontal radial drill, the surface of the table of which is near the floor, and the arm of which is movable in a

the surface of the value or which is mear the floor, and the arm of which is movable in a vertical plane, the fulcrum being a horizontal spindle, on the other side of which, cast in one with the arm, is a balance weight. The perspective of Fig. 1 makes the machine appear at first sight rather complicated, but the plan, illustrated in Fig. 3, will show the simplicity of the arrangement and fewness of parts. The parts comprising the movable head and the driving gear are the same as the firm usually applies to ordinary drilling machines, &c. For turning the arm a worm and wormwheel are provided, the latter having 36 teeth of 134 inch pitch, and being keyed on the horizontal shaft which forms the pivot for the arm, and to which the latter also is keyed. By this worm-gear the arm is, of course, brought to any position above or below course, brought to any position above or below the horizontal, but to hold it firmly two bolts, V, Fig. 3, are provided; these pass through the standard, and their heads enter a dove-tailed groove in the side of the worm-wheel.

the standard, and their heads enter a dovetailed groove in the side of the worm-wheel.

The driving gear is of the ordinary type.

The wheels A and B have 24 and 72 teeth
respectively, of ½ inch pitch; C and D have
18 and 62 teeth respectively, of ¾ inch
pitch. The two pairs of miter-wheels E and
G are alike, viz., 28 teeth and I inch pitch.
The pinion which drives the wheel F has 15
teeth, of ½ inch pitch, and F has 31 teeth.

Of the feed gear, the wheel H has 90 toeth
and I has 20 teeth, of ½ inch pitch, and the
spindle of the latter, when self-acting, is
driven by the worm and bevel-wheel I,
which is put in and out of gear by the
arrangement shown in section in Fig. 5.
The center disk K is loose on the spindle S,
and carries a small bevel pinion, P, which
also runs loose on its spindle. This pinion
gears with a bevel-wheel on the upper face
of the disk M, and also a similar wheel on
the under side of the worm-disk I, which is
loose on the spindle S, the disk M being
keyed to the latter. When it is required to
put the feed into gear the strap round the
center disk K is tightened by means of the
handle shown in Fig. 3. The cen-

put the feed into gear the strap round the center disk K is tightened by means of the handle shown in Fig. 3. The center disk then remains stationary, and the bevel pinion, turning on its own axis, transmits the motion of L to M. To stop the feed the grip trap is slackened, and the center disk K turns on its axis, carrying with it the bevel pinion P, which, instead of driving M, simply "walks" round on its under surface. The spindle S is prolonged below M, and takes a handwheel which is used for hand-feeding for rapidly traversing the spindle when re-

wheel which is used for hand-teeding for rapidly traversing the spindle when required. The worm-wheel L is driven by the worm W (Fig. 3).

The drill spindle is of steel, 2½ inches in diameter, and the table is 7 feet 3 inches by 3 feet. Work of any hight can be got on to the table, and the arm being capable of 3 feet. Work of any hight can be got on to the table, and the arm being capable of movement in any position up to 90° from the horizontal, and the headstock being readily moved to any position by the ordinary nut and screw, makes the machine a very useful one for drilling such objects as cannot be got under an ordinary drilling machine without the necessity of sinking a "pit." The bolt holes in long pipes and cyl-inders, for instance, might be easily drilled by means of this machine, and it may, when required, be used as a boring machine, the boring bar being driven by the drill spindle and supported by stays from the table or foundation plate.

The second machine, shown in Fig. 2, is a vertical radial drill, with an arm 7 feet long, carrying in the headstock a steel spindle 2 1/2 inches diameter, the nose of which may be put into any position from 2½ feet to 5 feet from the surface of the table, and which has a feed of 15 inches, obtained by means of the screwed sleeve H (Fig. 4) on the spindle and the strap and gear arrangement for self-acting, similar to that just described on the last machine. The main driving of the machine is of an ordinary type, as also is the means of raising the bracket which forms a fulcrum or pivot for the arm. The raising or lower-ing is accomplished by means of a hand spoke-wheel, which drives the worm gear and screw inserted in the body of the standard.

The special feature of this machine is the means provided on the beadstock for swivel-ling the drill spindle in any direction to any angle between 45° and its vertical position, and for indicating by means of a quadrant and index-hand the exact angle at which the drill is set at any time. The hand-wheel-worm—1½ inches pitch—and segment on the left of the headstock, and a similar arrangement on the right side of the latter, make the moving of the spindle to any angle

(Continued on Page 7.)

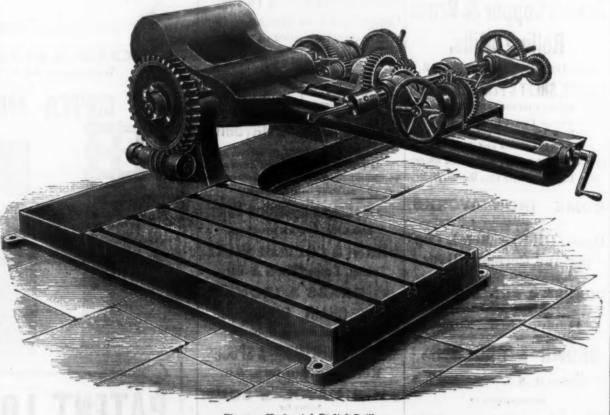


Fig. 1.-Horizontal Radial Drill.

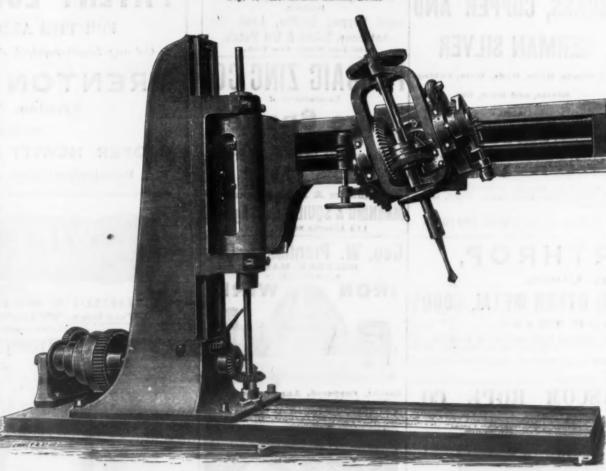


Fig. 2.—Vertical Radial Drill.

#### DRILLING MACHINES FOR THE RUSSIAN GOVERNMENT.

ganese contents of the latter could consequently have amounted to only 1.01 - 0.98 = 0.03 per cent., while the percentage was in reality 0.75. It follows from this that only a very small portion of the silicon has been reduced by manganese. As is well known, a closer affinity exists also between The large increase in the percentage of silicon in melting the steel richer is manganese cannot be mistaken. It follows, besides, from the analyses that the greater reduction of silicon was not only effected directly by the presence of manganese, but that the close affinity of the manganese re-

would only have required 3.93 × 0.25 = 0.98 removing the hearths, not only for the pur-per cent. of manganese, which must have pose of facilitating all repairs, but also for retaining the slag and other impurities been eliminated from the steel, and the man-charging them with masses of metal and in the hearth, a skimmer is employed con-The arched root, the front wall and the rear wall of the furnace are suspended from girders by means of hangers attached to plates located under the walls. The hearth, composed of a metallic shell having a lining of refractory material, is provided with a spout, with depending bearings and a flange designed to support the fore plate constituting the sill of the charging door of the furnace. As will be seen from this description, the

in the hearth, a skinmer is employed conimperfect castings too large to be introduced through the charging door of the furnace itself. A further object of the invention is to provide the furnace with a skimmer as arranged as to prevent the slag from being drawn off simultaneously with the metal. A metallic shield, suspended in front of the casting side of the furnace, is designed to protect the foundrymen from the intense heat thrown out by the furnace. The hearth proper well of the casting side of the furnace. The hearth proper well of the casting side of the furnace.

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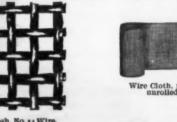
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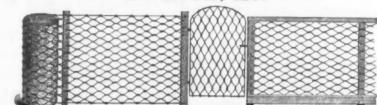
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#### TRADE PUBLICATIONS.

#### The Victor Turbine.

The different trade catalogues which are now issued by manufacturers of waterwheels very often contain acceptable in-formation as to the setting of wheels, the measurement of water-power, and a large variety of other particulars both valuable and interesting. Among these we may very justly class an attractive catalogue recently issued by the Stilwell & Bierce Manufacturing Company, of Dayton, Ohio. This catalogue is devoted to a detailed description of the mode of construction of the Victor tur-bine, manufactured by the company, and the text is furnished with numerous engravings, facilitating a better understanding of the matter. Probably one of the most interesting portions of the catalogue is that containing a number of tables which were calcuing a number of tables which were calculated expressly for the Victor turbine from data obtained by actual experiment, and which contain the size of different wheels in inches of diameter, the horse-power developed by them, the cubic feet of water used per minute and the number of revolutions made per minute by each wheel when at work for any head from 3 to 12 feet. These tables are guaranteed to be substantially correct, and will unquestionably prove a source of useful information to purchasers. The directions as to the construction of headdirections as to the construction of head-races, flumes and tail-races, the arrangement of wheels above tail-water, and the table for weirs, will be found equally interesting and deserving of attention. An account is also given of practical tests of the Victor turbine made with a wheel in actual service. As usual in many of the publications of this kind, a considerable portion of the available space is devoted to testimonials, judging from the number of which the wheel would seem to enjoy wide popularity.

#### The Cummer Engine Company.

Among other interesting specimens of trade literature received within the past few days is the illustrated catalogue of the Cummer Engine Company, of Cleveland-Ohio. A circumstance which will probably strike the reader at first sight is its extensive character, covering as it does some 162 pages replete with interesting and valuable information as to the general arrangement and details of their engine, and containing, also, hints as to the heating surface of boilers, materials of construction, circulation of water, boiler scale, &c. The typographical execution is all that can be desired, and the engravings, though in some cases showing slight defects, form an attractive feature of the publication. Something like 20 pages are devoted to the subject of the indicator, a careful perusal of which will more than repay the reader. The arrangement of the matter under this head, though by no means copied, is similar in some respects to that also, hints as to the heating surface of boilcopied, is similar in some respects to that adopted in the Buckeye engine catalogue, which is undoubtedly well known to the majority of our readers. It may be appropriate in this connection to state that the priate in this connection to state that the works of the company are entirely new, having been erected during the year 1882. They are conveniently located, possessing good shipping facilities, and well adapted for their business. The tools employed in the works have been built for the company with special reference to doing good work rapidly, and many of them were designed and constructed with a view to the production of better work than could be done with ordinary machine tools. In addition to the ordinary machine tools. In addition to the larger tools, special attention has been given to the smaller tools, jigs and gauges, so that their work may be made strictly inter-

#### Watertown Steam Engine Company.

We have just been favored with an attractwe have just been tavored with an attractive catalogue recently issued by the Water, town Steam Engine Company, of Water-town, N. Y., builders of engines, boilers, circular saw mills and general machinery. So far as general arrangement of the pattern is concerned, the catalogue differs in few, if any, respects from the usual speci-mens of trade literature, being furnished with numerous illustrations, together with particulars, price lists and table of dimenparticulars, price lists and to dimensions. The general execution, however, is worthy of some note, the engravings being attractive and the letter press so arranged as to be convenient for reference.

#### Printing Presses.

Messrs. C. Potter, Jr., & Co., of this city manufacturers of printing machinery, and having their works at Plainfield, N. J., have just favored us with their new catalogue, which, aside from its attractive arrangeand is illustrated throughout with engrav-ings showing the different styles of presses turned out by them. Suitable particulars are furnished in every case, together with tables of dimensions, which will be found valuable by intending purchasers. A separate pamphlet furnished with the catalogue, moreover, contains the prices for all sizes. The publication shows exceptional care in its arrangement, and cannot but favorably impress its readers.

#### Nut and Bolt Machinery.

The National Machinery Company, of Tiffin, Ohio, manufacturers of nut and bolt machinery, have just favored us with their new catalogue, which, in addition to engravings and particulars concerning their manufactures, contains some very interest-BESSEMER, MILL AND FOUNDRY PIG IRON, SKELP IRON, MUCK AND SCRAP BARS NATIVE AND FOREIGN ORES. AGENTS FOR CONNELLSVILLE COKE.

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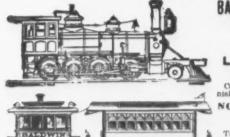
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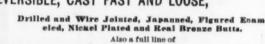
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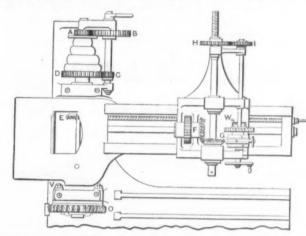
5. In no case must the caps, fuse or exploding these powders be bined."

(Continued from Page 1.)

an easy matter, and this movement is specially valuable where holes are required to be drilled at different angles in objects that are weighty and inconvenient to lift or set on the machine, and also for facilitating the drilling of holes at right angles to uneven surfaces, such as those of boiler plates, also bridge, ship and armor plates. The section (Fig. 4) will make the driving arrangement clear. The miter-wheels P have 22 teeth of 1 inch pitch; Q and R have 22 and 56 teeth

loaded in the same car with the explosives and under no circumstance will cars be re-ceived if so loaded.

6. Any and all nitrate or other explosive preparations not in accordance with above specifications (excepting ordinary black powder) will in no case be received for shipment.



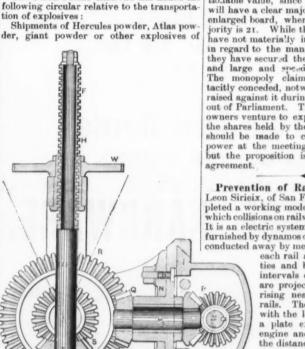
Drilling Machines for the Russian Government.-Fig. 3.-Plan of Drill Shown in Fig. 1.

respectively, also of I inch pitch, and the miter-wheels S have 22 teeth of 1½ inches pith. The ring of teeth F formed in the boss of wheel S drives the feed gear, the wheel W of which has 95 teeth of ½ inch pitch. The bolts B B pass through curved slots in the slide N, and are used to fix the slide at any angle to which it is turned. All of the internals have gun-metal husbers and the slide at any angle to which it is turned. of the journals have gun-metal bushes, and good, large wearing surfaces are allowed.

Transportation of Explosives.

The Union Pacific Railroad has issued the following circular relative to the transporta-

der, giant powder or other explosives of



tioned explosives must be covered to a depth of at least 2 inches with sawdust, to absorb possible leakage.

2. That the package containing the explosives shall be so placed and loaded that the cartridges shall always lie on their sides, and not on their ends.

3. That the cars shall be so marked on both sides and ends

tions) on the following conditions: Packed in wooden cases, in cartridges, each case holding not exceeding 100 pounds nor less than 5 pounds of explosives, provided that such explosives are packed in dry sawdust, as follows:

The Suez Canal Management.—The text of the English shipowners' agreement with M. de Lesseps shows that, while they have been accorded seven additional seats in the Board of Directors of the Sucz Canal, the membership has been enlarged from 24 to 32. The English representation has been increased from a minority of three to a minority of 10, but this concession is of quesminority of 10, but this concession is of questionable value, since the French directors will have a clear majority of 22 votes in the enlarged board, whereas their present majority is 21. While the English shipowners have not materially improved their position in regard to the management of the canal, they have secured the abolition of pilotage and large and speedy reductions of tolls. The monopoly claimed by M. Lesseps is tacitly conceded, notwithstanding the outery raised against it during the summer in and out of Parliament. The committee of shipowners venture to express the opinion that owners venture to express the opinion that the shares held by the British Government should be made to carry adequate voting power at the meeting of the shareholders, but the proposition is not included in the

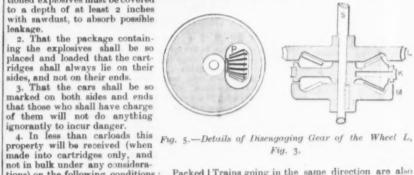
Prevention of Railway Collisions .-Leon Sirieix, of San Francisco, has just com-pleted a working model of an invention by which collisions on railways may be prevented. It is an electric system, the electricity being furnished by dynamos on the locomotives, and conducted away by means of wires laid inside

each rail along the tops of the ties and below the ballast. At intervals of 30 or 40 feet there are projections of these wires rising nearly as high as the rails. The necessary connection with the locomotive is made by a plate extending beneath the engine and tender, longer than the distance between the projec tions, and swinging so that it is in constant contact with

them. On each locomotive is an arrangement of bell and whistle whereby each may be rung by a current coming into the cab on one of the wires connected with the locomotive, whose dynamo is in connection with only one of the two wires between the rails. The other wires in connection with the december of the cab. wire is in connection with the dynamo of the locomotive coming in the opposite direction. Each locomotive, as it were out before it a current of electricity were, sends icity through Fig. 4.—Sectional View of Vertical Drill.

one of the wires beneath, using the same wires for going in the same direction, and different wires if approaching each other. In the latter case, the minute approaching locomotives enter upon the same section of weight 20,000 pounds, will hereafter be transported on the following conditions:
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That, at the cost of shippers, the bottom of the car containing the above-mental content of the car content of the



as follows:

Each cartridge shall be surrounded on all sides with dry sawdust, and all interstices between such cartridges, and a space of at least 1 inch between the outer side of such cartridge and the inner side of the case shall be filled with dry sawdust. Each of these cases shall be plainly marked on at least three of its sides with the name of its contents and "Explosive—Dangerous!" so as to be readily seen by those who are to handle it.

5. In no case must the cape fuse or or

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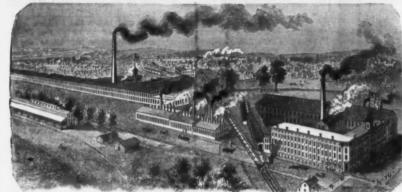
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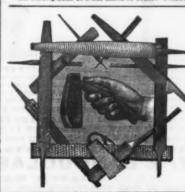
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COURSE OF PRICES AT NEW YORK—CENTS PER POUND—IN GOLD.

July 1, Dec.29, Dec.29, Dec. 14, Dec.19 1873, 1880, 1881, 1882, 1883 1880, 1916 1996 414 476 1578 1414 1214 8574 8534

Copper. Lake Superior opened in the New York market at 17%\$, and Chili Bars in London at £66. The month of January was inaugurated by a purchase of some 12,000,000 b Lake, made by manufacturers, it was asserted, at 18¢, but from the very commencement of the year brands not Lake showed a notable degree of weakness at  $17 \notin @ 17 \% \notin$ , and besides Lake about 1,000,000 lb changed hands during the month. The production of Copper in the United States was figured up at the time to have amounted to something like 40,000 tons of 2240 b during 1882, and as it was known that Chili had not produced as much, our output in the year named placed us at the head of Copper-producing countries, while in point of consumption in 1882 we also led the list. But for this latter fact the price in 1882 could not have been fact the price in 1882 could not have been maintained in the American market despite the high protective duty. In 1881 our production was 32,000 tons, so that the increase of output in a single year proved to have been 25 %. Serious doubts began to rise in the minds of the metal trade whether, with the possibility of a similar increase in 1883, there was a likelihood that domestic consumption could even approximately cope with such a supply; hence the feeling of weakness and want of confidence, intensified by the pending revision of the tariff. In by the pending revision of the tariff. In England the price remained steady in January, although it was shown that there was an excess of importation in 1882 of 9000 tons over 1881, and a decrease of export of tons over 1881, and a decrease of export of 6000 tons, whereas consumption had, apparently, increased 9000 tons. February opened at 18¢, Lake, nominally, but great dullness set in, sales thereof not exceeding 500,000 b, while Baltimore and other minor brands began to be freely sold at 16¢ (0) 16¼¢. Apprehension was expressed that production in this country might run up during the year to 45,000 tons of 2240 b, the Lake region alone perhaps contributing the Lake region alone perhaps contributing 27,000 tons toward such total. Another fact was taken into consideration—the import of Spanish Ores into the United States, which had actually commenced, although on a moderate scale. It became evident to all that we should have to take timely measures to export to Europe large amounts in various shapes in order to ease the market correspondingly on this side, as everybody was aware that toward May the Lake Companies would have in readiness to throw on the markets of the Atlantic seaboard something like 20,000,000 lb and thence forward 5,000,000 fb month. Prospects for the spring trade were also the reverse of Angland and France, February I, had been 43,156 tons, against 49,055 the previous year. In March the decline in this market made further notable headway, Lake during the month selling to consumers down to 1714¢, when toward the close it leaked out that the Lake companies had made a great

had been 25,387 tons, against 24,408 the previous year, and London recovered the previous year, and London recovered during the month to £63, 10/. Simultaneously a cablegram from the West Coast reported the preliminary peace agreement between General Iglesias on the part of Peru, and Commander Novoa on the part of Chili, a treaty of peace, however, only being signed finally on October 20, 1883, and with Bolivia on December 10, 1883. Although the spring trade, as had been apprehended, proved a partial failure, and there was considerable complaint about a slack demand for manufactures from the Naugatuck Valley, the month of May showed slack demand for manufactures from the Naugatuck Valley, the month of May showed a slight recovery from the depression that had characterized the market ever since the beginning of the year, and, with sales of about 1,000,000 fb, the month closed steady at 15\(\frac{1}{2}\psi \) @ 16\(\psi\) Lake, and 14\(\frac{1}{2}\psi \) @ 0ff Lake, and 14\(\psi\) diffunder cover of the still high price of Lake. With Copper rapidly accumulating on their hands, the Lake companies, however, resolved in June to put down the prices themselves, and sell to the manufacever, resolved in June to put down the prices themselves, and sell to the manufacturers 20,000,000 fb, delivery spread over the intervening months to October I, at 15\$\xi\$. After this sale was made the market righted, rising again to 15\$\xi\$\xi\$\xi\$\phi\$ @ 15\$\xi\$\xi\$\xi\$ for current sales of Lake, and 14\$\xi\$\xi\$\xi\$ other brands. Chilean export during the first five months proved to have been 18,878 tons, against 19,357 in 1882, and Spanish during the first quarter 5954, against 6130, Ingots, and 148,059 tons, against 147,078 Ore, while on June the visible supply in England and France stood 48,519 tons, against 48,619 in 1882, the deliveries having been 34,797 tons, against 34,666. All these 34,797 tons, against 34,666. All these rather favorable statistics caused Chili Bars to remain firm at £64 (@ £64. 10/, sustained, moreover, by a syndicate, in England, of operators for a rise, who had commenced to operators for a rise, who had commenced to buy up 10,000 tons Bars when they were momentarily depressed to £61 @ £62, and now held them for an advance, as they hoped, much beyond the July opening figure, which was £64, 10/ in London. In New York, July opened at 1534%, Lake, but during the month the general stagnation in ing the month the general stagnation in trade created a feeling of apathy, limiting transactions to 1,000,000 B and causing a recoil to 151/4¢, other brands giving way at the same time to 14¢ @ 14¼¢. Advices from the manufacturing regions at this time were nevertheless rather better. From data obtained, the world's Copper production in 1882 was at this juncture estimated to have been 171,612 tons, against 158,138 in 1881; 148,901 in 1880, and 147,656 in 1879. Advices from Liverpool were to the effect that smelters and manufacturers were purchas-ing only for immediate requirements, but were understood to hold very limited stocks, while there was more inquiry for Manufac-tured Copper. While this rather strength-ening news came from England, Spanish export for the first four months had been 7805 tons of Ingots, against 7680 in 1882, and 213,369 tons of Ore, against 199,737. London wound up the month of July at £63. In August the market in New York was excessively dull, sales of Lake Superior not exceeding 1,000,000 lb, at 15¢ @ 15½¢, while other brands were selling at 14¢ @ 141/2¢. Calculations were made at this time that the entire export in 1883 was not unthat the entire export in 1883 was not unlikely to foot up some 19,000 tons, while consumption was estimated at 32,000; deducting this from the total supply (inclusive of stock January I, 1883) of 51,000, there would consequently be a stock left on January I, 1884, of only 5000 tons, which, it was believed, would be barely sufficient for the winter months, and necessitate rail shipments this way from the Lake, provided the price advanced sufficiently early in 1884 to brilliant in consequence of inundations in the Ohio Valley and elsewhere out West.

The better brands of Arisona Copper commenced to undersell Lake steadily at 17¢ @ 17½¢. London closed at £65, and Lake, at New York, at 17¼¢. The visible supply in England and France, February I, had been that there had been exported from there are the supply of the transparent of the tran price advanced sufficiently early in 1884 to attract them. In other words, some people in the trade began to view the future of Ingots, against 9599 in 1882, and 205,007 tons of Ore, against 251,510. Meanwhile London recovered to £64. Although the sales in September did not exceed 750,000 lb Lake in New York, there was evidently an improved \*\*New Britain, Conn.

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\*\*Wagerooms\*\*

\*\*Warerooms\*\*

\*\*Warerooms\*\*

17% \$\psi\$, when toward the close it leaked out that the Lake companies had made a great great great that the Lake companies had made a great feeling noticeable, and from the opening feeling noticeable, and from the opening figure of 15% Lake finally recovered to part for consumption, at 16\$\psi\$. Other brands, meanwhile, sold at 15% \$\psi\$ @ 15% \$\psi\$. It was estimated at the time that at any rate and in inclination to press Lake Copper on the market, now that it had little to fear from market, now that it had little to fear from was on inclination to press Lake Copper on the market, now that it had little to fear from sould not decline materially, too, under the extra supply flowing in upon it from here and other quarters, in which event we should be borne down ourselves to even a facility. and other quarters, in which event we should be borne down ourselves to even a lower level than 16¢ for Lake Copper. But London was slow in taking the alarm, comforting itself with the reflection that Chili Bars worth £71 in September, 1882, appeared cheap enough at £66 at the end of March, the more so since the visible supply in England and France stood, on March 1, 42,-969 tons, against 31,4,482. It was ascertained at the time that German production in 1882 had been 20,000 tons, against 14,182. London was barely sustained, the conviction gaining ground there gradually that the Chili Bar speculation was a failure. Indeed, in October, in view of the many banking and mercantile failures in England, and the less favorable statistical position of Copper, London and Liverpool broke down completely, Chili Bars suddenly dropping to £61. In New York, on the content of the time that German production in 1882 had been 20,000 tons, against 31,4,482. London was barely suained, the conviction gaining ground there gradually that the Chili Bar speculation was a failure. Indeed, in October, in view of the many banking and mercantile failures in England, and the less favorable statistical position of Copper, London and Liverpool broke down completely, Chili Bars suddenly dropping to £61. In New York, on the content of the conviction of Copper at rule was a scertained at the time that German production in 1882 had been 20,000 tons, against 314,482. London was barely suddenly that the Chili Bar speculation was a failure. Indeed, in October, in view of the many banking and mercantile failures in England, and the less favorable statistical position of Copper, London and Liverpool broke down completely, Chili Bars suddenly dropping to £61. In New York, on the content of the many banking and mercantile failures in the many banking and mercantile failures in failure. ascertained at the time that German production in 1882 had been 20,000 tons, against 15,000 tons in 1881, and Spanish exportation of Ingots 22,708 tons in 1882, against 17,710 tons in 1881, and 20,040 in 1880. Spain at the same time exported 571,442 tons of Ore, against 452,475 in 1881, and \$61,425\$ in 1880. April opened at 10\$\epsilon\$ with Lake Copper, and \$15\epsilon\$ @ \$15\empirece{14}\epsilon\$ @ \$15\empirece{14}\epsilon\$ @ \$14\empirece{14}\epsilon\$ @ \$14\empirece{14}\epsilon\$ @ \$16\empirece{14}\epsilon\$ & \$16\empirece{14}\e 216 South Fourth Street, PHILADELPHIA.

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April opened at 16¢ with Lake Copper, and 15¢@ 15¾¢ other brands. Former restrictions not to reimport for consumption exported Lake Copper had in recent contracts for export been waived by the Lake companies, these thus accepting the accomplished fact that the home supply could thenceforth be obtained at the same figure as the supply 184 in 1882, and of Ore, 360,080 tons, against 13,-184 in 1882, and of Ore, 360,080 tons, against 13,-184 in 1882, and of Ore, 360,080 tons, against 13,-184 in 1882, and of Ore, 360,080 tons, against 13,-184 in 1882, and of Ore, 360,080 tons, against 13,-184 in 1882, and of Ore, 360,080 tons, against 13,-184 in 1882, and of Ore, 360,080 tons, against 13,-184 in 1882, and of Ore, 360,080 tons, against 13,-184 in 1882, and of Ore, 360,080 tons, against 14,-184 in 1882, and of Ore, 360,080 MANUFACTURERS OF

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E. M. REED." (Attorney for De

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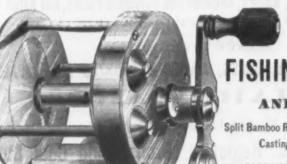
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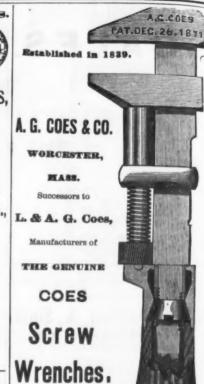
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eculative holdings in the London market £95; New York, on the other hand, opened had become slim indeed, and this seemed to have been understood on the other side; hence the collapse. Net increase of Copper importation into Liverpool and Swansea during the year ended September 20, 1883, 9972 tons Fine. Increase of consumption in England and France first nine months, 1314 tons. Spanish export of Ingots, first eight months, 15,047 tons, against 14,253 in 1882; of Ore, 407,032 tons, against 407,073. Total arrivals of Copper at Liverpool from the United States during the first ten months, 7125 tons Fine. News reached us from Spain that the Rio Tinto Company made 3000 tons more Copper than in 1882, and that Spain exported Ingot Copper during the first nine months at the rate of 24,000 tons per annum. In December, quite a break occurred in the London market in Chili Bars, which fell to £57. 10/, partly in had become slim indeed, and this seemed to have been understood on the other side; supply on May I was 3204 tons, against hence the collapse. Net increase of Copper 3546 in 1882. Shipments from the Bars, which fell to £57. 10/, partly in consequence of the large amount of Mon-United States to Europe, contracted there on the basis of the price of Chili Pig. New York, on the other hand, evinced a rather better feeling, notably in Lake Copper, dure eight ing the closing weeks of the year, the posi-tion of Copper being evidently a very sound one, the stock on hand being considerably lighter than the year previous, while it was estimated that Lake Superior and Arithan they did in 1882. Vermont, at the same time, had stopped producing altogether, and Montana and other brands being exported, beside some 15,000,000 pounds of Lake and other Refined, against 3,500,000 pounds the year previous. While all this could be advanced in favor of the position of Copper on this side, it was found that no

	-CENTS	PER	POUND			
	1874.	1875.	1876.	1877.	1878.	1879.
January	26	2314	28	1936	1716	1534
February		99	2234	19	1734	1516
March		2116	2216	1936	1736	15%
April	25	2212	2094	1896	17	16
May		28	20	1934	1634	1616
June		28	2034	1934	16%	1614
July	94	23	2014	1916	1634	1616
August	21	2816	1912	18	1634	1614
September	2134	2817	20%	18	1616	1734
October	2214	2814	21	1734	16	21
November	2314	2836	20%	1794	1594	2116
December	2314	2512	20	1796	153%	2116

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1894 @ 1894
1894 @ 1894

Tin.

a visible supply of 3092 tons, against 3271 in 1882, 5441 in 1881, 5477 in 1880, and 1711 in 1879. Straits stood in London on January 4, 1883, £93. A Tin failure in Glasgow inaugurated the year. As shipments from the Straits to Europe and America were light, however, and there existed some speculative demand in London, the market soon took or proposed turns advancing to 504, 504 took an upward turn, advancing to £94. 5/, but immediately receded again to £92. 5/, at which the month closed, while here we gave way to 21¢. Shipments from the Straits settlements to the United States during the settlements to the United States during the first eleven months of 1882, 104,395 piculs, 76,522 in 1881. February opened with a visible supply of 3550 tons, and a quotation for Straits Tin of 20%¢. On February 15 the visible supply had increased to 3654 tons, against 3611 in 1882. The month developed only a moderate degree of activity. The tial duty in favor of Tin via the Cape prices would vary less in future between Europe and America, by reason of an easier transfer of stock between the two, and thus rather curb speculation than promote it, became more and more patent, and to some extent deprived the metal of speculative interest from the very commencement of the United States during the first eight months had been 8334 tons, against 5504 tons the previous year. December opened at London at £85. 15/, but gradually gave way to £84. 10/. In New York Straits occasionally rallied a little from the opening figure of 18%\$\psi\$, but the demoralization was too deep-seated to be easily relieved. On done with very large means. London recovered to £94. 5/, but finally wound up again a £93. March opened at New York at 20 ¼ ¢, but under a fair demand gradually rose to 21 ½ ¢ at which it closed, while London recovered at which it closed, while Lindon recovered to £97 under a speculative movement oster sibly based on light shipments from producing countries, although in reality the shipments during the first two months had bee to Europe and America, from the Straits and Australia, 4935 tons, against 4030 in 1882. O March I the visible supply was 3600 tons a New York and Boston; on the 15th it stoo 3364, against 3082 in 1882. The Treasur returns showed an import of Tin into tu United States in 1882 of 10,491 tons ne against 7876 tons in 1881. During the firs seven months of the fiscal year it had bee April opened in the London market at £95. 5 and after some fluctuations the month close at £97, while in New York the opening figur was 21 1/4¢, closing at 21 1/4¢. The visible supply on April 1 was 3500 tons; of April 14 it stood 3319, against 3546 th previous year. Statistics reached us at th time from Batavia, according to which the export of Billiton Tin from Java in 1882 ha been 74,116 piculs private, against 71,612 i 1881, and 72,399 in 1880, and 67,437 picul Government Tin, against 76,949 and 75,429 January Tin shipments from the Straits to the United States were 13,366 piculs, against 16,816 in 1882. During the first eight months of fiscal year the net import of Tin into the United States proved to have been the only wonder was that, in the face of

June 1 to 2977 tons, against 3313 the pre-vious year; on June 15 it stood 3072, against 3198. Shipments from the Straits settle-ments to the United States, first four months, ments to the United States, 1178 four months, 34,866 piculs, against 39,176 in 1882, and import into the United States during the first eight months of fiscal year, 10,394 tons net, against 6767 in 1882. The large shipments from producing countries to Europe and America began to provoke a good deal of comment, both in London and New York, indispensing consumers to go at any time. comment, both in London and New York, indisposing consumers to go at any time beyond urgent requirements at ruling comparatively high figures. On July 1 the visible supply on this coast was 3082 tons, against 2051 the previous year, and the price at New York 21 1/4 c. From this figure it advanced to 21 1/4 c, but wound up the month at 21 1/4 c under heavy arrivals. London stood ooo pounus or ainst 3,500,000 vanced to 21 1/4 ¢, but wound up to a while all this 21 1/4 ¢ under heavy arrivals. London stood for the position of July 1, £93. 5/, and closed the month at £94. 10/. The Billiton sale established early in Luly the cost and freight quotation per Copper on this side, it was found that no Copper worth mentioning was held in second hands, manufacturers at the same time steam to Holland at £95. 10/, but Singapore scarcely having a month's supply on hand. It thus became clear that fine malleable Copper would soon become scarce, with a fair prospect of its commanding higher prices early in the new year.

VALUE OF INGOT COPPER AT NEW YORK IN CURRENCY.

—CENTS PER FOUND.

1572, 1873, 1873, 1873, 1873, 1873, 1874, 1874, 1875, 1878, 1873, 1874, 1875, 1878, 1875, 1874, 1875, 1878, 1875, 1874, 1875, 1876, 1877, 1878, 1875, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1877, 1878, 1878, 1877, 1878, 1877, 1878, 1878, 1878, 1877, 1878, United States during the first 11 months of the fiscal year, 11,377 tons, against 7385 the previous year, and shipments from the Straits to the United States the first five months, 38,210 piculs, against 44,261 in 1882. On August I the visible supply on this coast was 4000 tons. The statistical position was thus becoming more and more unfavorable among us. Continual heavy arrivals caused a very tame feeling. September opened with a visible supply of 4970 tons and the price of 211/4¢, at which figure the market remained steady to the close, though lacking all spirit and activity. London opened at £94. 5/ and gradually recovered to £95. 10/, at which quotation it wound up the month. Export from the Straits settlements to the United States first half year, 52.489 piculs, against 46,901 in 1882. Imports into the United States during the fiscal year ended June 30, 11,891 tons net, against 9331 tons the previous year. Australian shipments to England at the time were steadily between 900 and 1000 tons per month. October opened with The year opened with Straits Tin at New York at 211/4¢, against 24½ in 1882, and 14½¢ in 1879. The import into New York and Boston in 1882 was 9596 tons, against 9246 in 1881, 12,725 in 1880, 9389 in 1879, and 5175 in 1878, and the year opened with a visible supply of 3092 tons, against 3271 in 1890 and 1711 in 1881, 1711 in 1880 and 1881 in 1881 in 1881 in 1881 in 1881 in 1881 in 1882 in 188 the market opened at £95. 10/, and at first displayed some reviving buoyancy, which made room later on, however, to great flatness and a decline to £93. 10/. The truth is that at length the enormous shipments to Europe and America began to tell and a rapidly drooping tendency was plainly foreshadowed. Shipments from the Straits settlements to the United States during the first eight months. 4700 tons, against 4642 in first eight months, 4700 tons, against 4642 in 1882. Russia imported during the first six months, 833 tons, against 847 in 1882. On November I the visible supply on this coast had meanwhile been reduced to 3500 tons, but this did not prevent the market from developing great weakness during the course of the month, a decline to 18¼¢ being, moreover, precipitated by a complete breakdown of the London don market, which rapidly dropped to £85. 10/. Meanwhile the net import of Tin into the United States during the first eight December I the visible supply on this coast was as low as 2700 tons, but the market was

188:	2.	Imp	port	of	Tir	in	to I	Cure	pe	du	ing	th
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	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oet.	Now.	Dec.

8013 tons, against 4375 the previous year.

In May, London was ill-sustained; in Europe and America, the price should have augurating the month at £97, it closed at been sustained on both sides of the Atlantic

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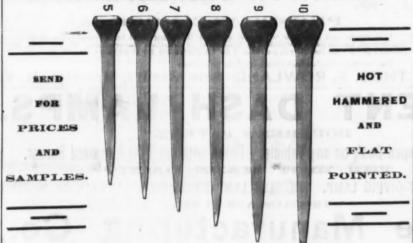
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so long; it certainly could not have been kept up as it was if the markets had been left to shape their own course in conformity with the legitimate demand and supply.

New York consumers, as well as those in neighboring cities, to abide by their policy of abstention, thus allowing the metal to settle down to its intrinsic value. Septem-Finally the New York market dropped to

The year opened at \$4.70, Common Domestic, at New York, and \$4.30 at St. Louis. January, with rather severe winter weather. was very quiet, sales being restricted to 2000 tons, and the market closing at \$4.65. Estitons, and the market closing at \$4.65. Estimates were made of Lead production in the United States in 1882, placing the same at 125,000 tons of 2240 pounds. News reached us from Sardinia, Italy, that great activity was being displayed there in Lead mining, and that important discoveries had recently been made of argentiferous Lead. London opened at fra 160 feb., Company For. opened at £13. 15/@ £14. 5/, Common English Pig. February opened at \$4.60. Statistics reached us from the West according to which out of 125,000 tons produced in 1882, some 100,000 tons came from argentiferous ores and emanating from eleven great smelt-ing works. While the Lead they turned out represented a joint value of \$10,000,000, the silver and gold extracted amounted to \$20,000,000. Sales in February were limited to 000,000. Sales in February were limited to 1000 tons, and the price gave way toward the close to \$4.50. London opened at £13. 15/, closing at £13. 10/. Import of foreign into England in 1882 only 87,741 tons, against 102,140 in 1879. British mines turned out in 1882 some 53,000 tons, against 61,403 tons in 1877. There was still an impression in England that Lead was so low that production in Spain and elsewhere would have to be cur-Spain and eisewhere would have to be curtailed, because at ruling rates it did not pay, but it was overlooked that in Spain, for example, in spite of assertions to the contrary, the owners of argentiferous mines were making money all along, as dividends declared subsequently abundantly proved. Hence the impression prevailing in England early in 1883 was, in the main, an erroneous one, and caused in the long run serious losses to people misled thereby. Indeed, Spanish production, instead of being curtailed by low prices, was, on the contrary, impelled to turn out all the larger amounts on the principle of a moderate profit on a large output, enabling the mines still to declare acceptable dividends. March, opening at \$4.62½, was quite a lively month, characterized by a sequite a lively month, characterized by a series of fluctuations, yet finally winding up at \$4.50, some 2000 tons changing hands in the course of it. Consumers at length began to operate on a more liberal scale; hence the activity, interest concentrating on the holdings of the Richmond Company. London began the month at £13.12/6 and wound up at the same figure. In April the spring trade at the same figure. In April the spring trade developed more activity in Lead out West, some 4000 tons changing hands in St. Louis some 4000 tons changing hands in St. Louis and Chicago, while here not over 1000 tons were sold. Opening at \$4.47\footnote{1}, our market stood at the close of the month, \$4.60. Spain exported in 1882, 116,132 tons of Lead, against 105,800 in 1881. Germany produced in 1882, 93,000 tons, against 87,000 in 1881. London cabled early in April £13. 10/, and at the end of it, £13. 7/6. In May the trade in Lead began to pick up somewhat in New York, too, some 3000 tons changing hands during the month, which at its commencement stood \$4.50, and finished the month at \$4.32\footnote{1}/2. London opened at £13. 10/, winding up at £13. 5/ which at its commencement stood \$4.50, and finished the month at \$4.32\footnote{12.50}. London opened at £13. 10/, winding up at £13. 5/. It was estimated at the time that Lead consumption so far in the year on this coast was about one-third less than during the corresponding time in 1882. At any rate, consumers from the year commencement seemed sumers from the very commencement seemed determined only to operate strictly in ac-cordance with current requirements, while cordance with current requirements, while speculators showed less eagerness to meddle with the metal than in former years. On the other hand, the chief parties controlling Lead out West took a more active part in trying to bolster up the market than they ever did before, and in this they were aided by the very good demand for Corroding Lead there till fell, when it also disappeared all of a till fall, when it also disappeared all of a sudden. It has been characteristic of 1883 that the American Lead market was most

actively manipulated out West, and that New done at steady rates. Some consumers sounded the market for lots on future Spain that production there would equal in 1833 our own in 1832. Sales in this market in July summed up some 2500 tons, the price opening at \$4.40, and gradually yielding to \$4.30. The West kept quiet. London stood early in July at £13, and at its close £12. 15/. Although in August transactions were not large in New York, the metal fluctuated more than usual, being at first \$4.30, then gradually sinking to \$4.20, in order to recover quickly to \$4.30, and finish the month at \$4.30, sales aggregating 1200 tons. Statistics from Spain showed an export during the first five months of 51,068 tons, against 47,442 in 1882. From 1868 to 1872, inclusive, Spain exported altogether 383,993 tons; during the next quinquennium, 1873-1877, 455,959 tons, and from 1878 to 1872, inclusive, Spain exported altogether 383,993 tons; during the next quinquennium, 1873-1877, 455,959 tons, and from 1878 to 1872, inclusive, Spain exported altogether 383,993 tons; during the next quinquennium, 1873-1877, 455,959 tons, and from 1878 to 1872, inclusive, Spain exported altogether 383,993 tons; during the months of the fiscal year 7486 tons, against 5940 the previous year. June brought no relief, but, on the contrary, the apathy and weakness deepened, producing a most unsatisfactory condition of the market, which from \$4.70 early in the month gradity in the month gradity, the contrary, the apathy and weakness deepened year, 54,20, london opened at £15, 1/3. Import into the United States during the first in months of the fiscal year 7486 the previous year. Spanish Calamine export during the first in months of 1883, 480.2 tons, against 8616 in 1882. In July our market continued inactive and weakning; opening at \$4.55, it closed at \$4.37½. London commenced the month weakness deepenally, and it became evident that the Western manipulators would soon get tired o

New York consumers, as well as those in neighboring cities, to abide by their policy of abstention, thus allowing the metal to settle down to its intrinsic value. September opened at \$4.30 and closed at \$4.32½, but the sales were limited in New York to 1500 tons, very little for the season. London remained steady during the month at £12. 12/6. Spain reported 61.974 tons shipped during the first six months, against 59,600 in 1882. In the West, quite a moder-59,600 in 1882. In the West, quite a moderate trade was done. October opened at 59,000 in 1992. In the west, quite a moderate trade was done. October opened at New York at \$4.30, closing at \$4.12½, sales being limited to 2000 tons. During the first seven months it was shown Spain had exported 72.81c tons, against 67,731 in 1882. The Linares district alone turned out in 1882, 129,000 tons of Ore, 84,300 tons of Pig Lead and 28 tons of Silver, against of,414 tons of Ore, 62,465 tons of Silver, against 96,414 tons of Ore, 62,465 tons of Pig Lead and 20 tons of Silver in 1882. Russia imported, on the other hand, during the first half year, 11,574 tons of Lead, against 9036 in 1882. London opened in October at £12. 7/6 @ £12. 10/, and closed at £11. 17/6 @ £12. 2/6. In November the leading operators out West at length got seriously alarmed and resolved to make short work of it, their and resolved to make short work of it, their precipitate action to rid themselves of Lead causing quite a break from the opening figure of \$4.10 to that of \$3.70 at the close. While Lead thus receded to a more reasonable figure at New York, it began to recover in the London market, where, from the opening price of £12, it rose to £12, 12/6 at the close of the month. During the first eight months Spain had exported 83,477 tons, against 77,070 in 1882, showing an exportation at the rate of over 125,000 tons per annum. Sales in New York in November, 3000 tons. As in December the demand for Lead ceased pretty much altogether in this market and re mained in the same condition of inactivity in mained in the same condition of inactivity in the West, the metal lacked all support and quietly settled down to \$3.60. Meanwhile Western corroders made an effort, toward the close of the year, to arrive at an agreement as to White Lead prices; several meetings took place, and Eastern corroders were spoken to to join the movement. The latter showed little inclination to co-operate and over these negotiations the year was brought to a close. Spanish Pig Lead exportation to a close. Spanish Pig Lead exportation during the first nine months was 93,025 tons, against 87,759 in 1882, and 77,506 in 1881; in other words, Spain had till then been exporting Lead at the rate of about 120,000 tons per annum. In New York the market closed in December at \$3.60, Common, large lines, and \$3.65 @ \$3.70 jobbing lots, Refined being offered at \$3.70, and St. Louis quoting both Hard and Soft \$3.30. The impression prevailed at the close that an agreement among corroders about White Lead prices might be productive of a temporary rebound in January, 1884.

PRICE OF COMMON DOMESTIC LEAD AT CENTS PER POUND.

1879. 1880. 1881. 5566 4569 4569 4569 4569 4569 558

Spelter. January opened at \$4.62 1/2 @ \$4.70; Com-January opened at \$4.62½ @ \$4.70; Common Domestic and Silesian, \$5.12½ @ \$5.25, while London cabled £16, 7/6. Net import into the United States during the first 10 months of 1882, 11,775 tons, against 1730 tons in 1881. January was a dull month, but the price was sustained, while London gave way to £16. 5/. Early in February LaSalle makers began to offer March delivery at \$4.65 in the New York market, causing our price to open at \$4.62½. Import ing our price to open at \$4.62½. Import into the United States during the first 11 months, 12,549 tons, against 2544 in 1881.

Our market remained quiet throughout the month, the price not varying, while London closed the month at £15, 12,6. March, at first quiet, brought a better demand during the latter part of it, and, opening at \$4,62\%, Spelter rose to \$4.80 at the close. Godulla was selling at Breslau at 15 marks \$750 kg., and London closed the month at £15.7/6. The net import into the United States in actively manipulated out West, and that New York played a sort of secondary part, because less sanguine as regards the maintenance of prices; fortunately so, Lead speculation, as a rule, being about the worst business, in the long run, which any merchant can engage in, a thing duly appreciated in New York since 1857. June saw a fair amount of trade transacted in this city, some 3000 tons changing ownership, opening the month at \$4.40, advancing to \$4.50, and ending again at the inside figure, while out tons carging to \$6.88 the previous year. net import into this country had been 6588 the month at pa.40, the inside figure, while out tons, against 4568 the previous year, dono pened at £15. 12/6, closing at £15. 9/6.

Spanish Calamine exportation was shown to the followed from 30.604 tons in 1881 to sounded the market for lots on future delivery without finding asking proces to suit their views, even approximately. London inaugurated the month at £13, remaining so to the close. People in England were taken aback at the large shipments hither from Spain of 41,032 tons the first four months, against 36,987 in 1882, and 35,466 in 1881; indeed, it was predicted from Spain that production there would equal in 1883 our own in 1882. Sales in this market in July summed up some 2500 tons, the price opening at \$4.40, and gradually yield-

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# The Iron Age

#### Metallurgical Review.

New York, Thursday, December 27, 1883.

DAVID WILLIAMS, JAMES C. BAYLES, JOHN S. KING, Publisher and Proprieto Editor. Business Manager.

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#### The British Iron and Steel Institute.

There is now on foot in this country a movement, as yet not very well organized. to extend to the British Iron and Steel Institute an invitation to come to this country and hold a meeting during the summer of 1884. While it is probable that the majority of those directly and indirectly engaged in metallurgical industries in this country would be very glad to see the British Institute here, and would spare neither trouble nor expense to make their visit pleasant and profitable, there is some uncertainty as to the best way in which such an invitation can be sent. Two or three enterprising gentlemen who are acting as a self-constituted committee for the purpose are now engaged in securing the signatures of manufacturers to someth invitation as they feel at liberty to make it. Others are trying to exert an influence upon the three great technical societies of the country which shall lead to an official invitation on the part of such societies. There are some who think that an invitation should come primarily from the American Iron and Steel Association, and there are a great many who, though opposed to extending any invitation at all, would be very glad to see the British Institute here should they elect to come, and would do everything in their power to repay them for coming.

The various movements we have noted all tend in one direction, and whether or not they result in such an invitation as the British Institute can accept, they will, at least, show the existence in this country of a very good feeling toward our friends across the water. So far as the American Iron and Steel Association are concerned, it is not likely that they will extend such an invitaprobably not be accepted. The object of committee for this purpose appointed. We buying only enough to supply their immethis association is one with which it is are not advised whether the Civil Engineers scarcely probable British ironmasters have have also appointed a committee, but have very much sympathy, and those who recall no doubt they will gladly do so. What action some of the speeches made at the dinner the societies will take depends, of course, tendered Messrs. Bell and Whitwell, in upon the interest which the members feel in in Sheffield, not to press their claim for an Philadelphia, some years ago, would be apt the invitation of the British Institute for a advance at present. This resolution probto hesitate before placing themselves in a joint meeting. Knowing as we do that ably averts one of the most important strikes position to be instructed in the elements of such an invitation is desired, and having for many years in England. It is claimed political economy by advanced protectionists. good assurance that it would be accepted, that 135,000 miners would have obeyed the It is also not probable that our English we fail to see how our American societies orders of the recent Sheffield conference friends would regard as an invitation a copy can, with courtesy and propriety, refrain The failure of the movement seems to have until prices advance to a profitable point. of a paper signed by any number of Amer- from extending it. In their membership been a refusal on the part of the Lanca- In this condition of affairs prices should be ican manufacturers. An invitation must are many American engineers who have shire men, numbering 35,000, to quit work steadily maintained. There is nothing to be shown by the encouragement given to all come, if at all, from some regularly organized been the recipients of distinguished courtesy without being assured that the necessary gained by underbidding or cutting. It is undertakings in this direction. Chicago, it

and profitable. Preferably it should come ican Society of Mechanical Engineers. Though separately organized, these three societies constitute one great body of engineers bound together with strong ties and mutual interest. The membership of any one of them is pretty much included in that of the other two, and we could name a number of gentlemen who are members of all three. If, therefore, there is to be an invitation to the British Institute to come to this country next year, it should properly be tendered by the three societies or by a joint committee appointed for the purpose.

We have no doubt such an invitation could

be easily secured if the idea of a visit from

the British Institute were now suggested for the first time; but a serious difficulty in the way of reaching an understanding between the American societies and the British Institute is found in the existence of an idea among most engineers in this country that such an invitation was tendered a few years ago, and not only refused, but received with scant courtesy. There is a tradition among the Mining and Civil Engineers that some invitation to the British Institute to meet in a careful canvass and a good deal of hard work he secured such an invitation, which he and Mr. Charles McDonald presented to the Council of the British Institute, at a dinner tendered them by Mr. Holley in London. and that the way it was received by those gentlemen gave Mr. Holley great offense, and warranted the determination on the part of his friends in this country never to extend such an invitation again. Having heard an account of the matter from Mr. Holley shortly after his return, and later from Mr. McDonald, we are not in a position to question the facts, but we do know that what is now regarded in this country as a formal invitation to the British Institute was not so regarded in England at the time it was received. We are assured from recent letters from more than one of the gentlemen high that supplies were always laid in at sumpresent that neither then nor at any other time did Mr. Holley give to the British Institute an invitation to visit this country. What he did was to call a few of his friends together, as friends, to discuss the question whether an excursion party composed of the eading men of the leading technical societies of Great Britain could be organized to visit the United States. But the gentlemen most interested at the present time are evidently sincere in believing that no invitation was, in any sense, extended to the Institute and as an institute, and that Mr. Holley's proposition fell through, not because of any action taken on the part of the Institute or by any of its officers or representatives, but because there were not enough representatives of the different societies favorably disposed to constitute an excursion party. Perhaps there is room for difference of opinion at this late date as to what was said by Mr. Holley and Mr. McDonald, but certainly there is no room to doubt the sincerity of the officers of dullness which had prevailed for several the Institute in asserting that no invitation was extended to them that was not also extended to representatives members of every other British technical society who might care to avail themselves of it. As we recall the matter, especially after re-reading the circu- and they are not stopping, but they realize lar letter issued by Mr. Holley, which was sent to the Mining and Civil Engineers, ever they want it, and if prices fall they we are impressed with the fact that our will get the benefit of the drop. At any English friends have a correct view of the rate, they save the interest on the money matter. It is undoubtedly true that Mr. which would otherwise be invested in large Holley had in mind, not a visit of the British stocks and run no risk. This particular and Steel Institute so much as an excursion of representative English ironmasters and metallurgists. Such an excursion would be difficult to organize at any of advancing prices, the season would make time, and the fact that such an invitation was declined should not be permitted to prejudice the minds of those who would be glad to see the society here against extending them an invitation which, without any doubt, would be promptly and gratefully accepted.

Two or three societies in this country from which such an invitation should come have already taken some action in the matter. At the last meeting of the Mechanical Engineers a committee was appointed to confer with a similar committee of the other two societies, to consider and recommend what action should be taken by the Society of Mechanical Engineers in the event of a visit to this country by the British Institute next summer. At a meeting of the Council of Mining Engineers, held in this city a few If they did, the invitation would days ago, similar action was taken, and a them to continue indefinitely their policy of

society of good standing having aims and from the British Institute. One needs but funds to support them while idle would be evident that prices have gone low enough objects similar to those of the British Insti- to introduce himself abroad as a member forthcoming. It will be noticed in all strikes when some of the mills refuse business at tute, and sufficiently strong in membership, of one of our engineering societies to be that the two chief elements leading to a present rates for fear of heavy losses. Fur resources and influence to make it certain heartily welcomed and invited to all the decision as to its wisdom are, first, the ther reduction of prices will tend to defrom the three important technical societies far been offered by our engineering societies through past accumulation of funds; and, they may be able to get still easier terms. now in successful operation—the American of showing that these evidences of sympathy second, the condition of the market. Prices are fairly firm, and they should be Society of Civil Engineers, the American and good feeling are appreciated and recip-Institute of Mining Engineers and the Amer- rocated. The cost involved in extendand a reception is not great enough to be a condition of the market, or such a pros- should follow the example of the Western given a moment's consideration. The question of the financial condition of the societies need not be considered, for we are certain that abundant means to do everything expected could readily be raised by private subscription. A joint meeting of the four societies would be the most memotable of its kind ever held in this or any country, and the opportunity is one which, if neglected, is not likely to come again in this generation. We have considered the matter in our columns because, in our judgability to endure a strike were also wanting. In the East. If these companies determine matter in our columns because, in our judgment, the time has come when it should re- The notices of an advance have been withceive something like public attention. It drawn and the strike is practically abanhas been whispered in corners and discussed doned. in private correspondence until probably everybody for whom it had interest knows that such an invitation is under consideration, and there is no reason why it should longer be kept a mystery. In February next an opportunity will be offered for a definite expression by all three of our technical societies of the wishes of the memberyears ago the late A. L. Holley conceived the ship, and the best way to secure an intellinotion, during a visit to England, that an gent expression of their views is to discuss the East, one is in New York and four are in the question publicly and freely. Should this country would be acceptable; that after any one wish to discuss it in our columns we geographical distinction is strongly marked, will gladly place the necessary space at his disposal.

#### Effect of Improved Business Facilities.

In considering the relations of the consumer with the producer there is a point which is not brought forward quite so prominently as it should be. This is the influence on consumers' stocks of our present admirable facilities for the rapid transaction of business. Not many years ago it was necessary for heavy consumers of iron to anticipate their requirements for several weeks, and as winter approached they were obliged to lay in a whole season's supply, as either they or the producers were dependent upon water transportation to some extent. Winter rail freights were generally made so mer water rates if possible. Now, however railroads have so increased and multiplied that there are very few manufacturing localities in the country not supplied with competing roads. The service is so efficient that large establishments find it unnecessary to carry heavy stocks of the materials they use, being able to order by telegraph with a certainty of getting what they need in a few days at a reasonable cost for freight, even in the depth of winter.

There was a time when buyers could not take this advantage of an overstocked market, and when producers looked forward with certainty to a heavy trade in the latter part of the fall, the change of seasons being an advantage in favor of the seller. But this has been greatly, almost wholly, changed. The past fall, it is true, witnessed a little better movement just before the close of navigation, but it was not a heavy or decided change from the condition of months. Great establishments, which in other years laid in thousands of tons of pig iron, merely continued to buy their usual weekly or monthly supplies. Yet they did not expect to suspend operations this winter, chase of the question of stocks would, of course, change very greatly if the tendency of prices was upward. But in a time no impression on buyers, as they would lay in large stocks without regard for anything else except to secure lower rates than those threatened in the future. When consumers stocks are light, and stocks in makers' hands are but moderate, the trade is in much more favorable condition for an upward movement in price than when both classes are well supplied, but the mere fact that consumers' stocks are light is not alone good ground for expecting a brisk revival in the demand. There must be other and more radical influences at work to improve the general tone of trade. It is delusive to the last degree to expect that, without any other cause than light stocks, buyers must ultimately come into the market in force and purchase so heavily as to start prices upward. Our railroads and telegraphs permit

The English coal miners have shown their wisdom by resolving, at their recent meeting

diate wants.

Neither these elements seemed to favor a strike of the miners of England at justify an increase of 15 per cent, in wages. The iron trade of England, the great conwithout any prospect of improvement, and no better times can be hoped for in the coal was against the strike, and, as it appears from the action of the Lancashire miners, ability to endure a strike were also wanting.

#### The Steel-Rail Trade.

Nine of the Bessemer steel-rail establish ments of the country are located west of the Allegheny Mountains and five are east. Of those in the West, three are in Pennsylvania, one Ohio, three in Illinois, one in Missouri and one in Colorado. Of those in Pennsylvania. This Eastern and Western and seems to be of more than ordinary significance at present. Of the mills in the West, the Colorado mill is so distant from all the others as to be practically isolated, and therefore does not come into immediate ompetition with them for business. The Union mill, at Chicago, has been idle since last February, and there are no indications of an early resumption of work by the company controlling it. The Joliet mill has been shut down for an indefinite period, and will probably not resume operations before spring, having some orders for spring and summer delivery. The old mill of the North Chicago Rolling Mill Company has not been in operation for some time, and the new mill will probably be found capable of doing all the work its managers care to take. The Cleveland Rolling Mill Company are refusing orders at \$35, because they are un-profitable. The Pittsburgh Bessemer mill is now out of the race for steel-rail orders, and will hereafter be run on specialties. The mill of the St. Louis Ore and Steel Company is to the West only the Cambria, Edgar Thomson and the North Chicago Rolling Company's new mill to compete actively for current the St. Louis Ore and Steel Company is reported to be caused by their inability to prothis is true, and the elements which enter into the cost of production at St. Louis cannot be sufficiently reduced, the company have acted very wisely in refusing to sacrifice their capital in the mere effort to keep in operation.

Of the rail mills in the East, the mill at Troy is temporarily idle, but all the other mills are in operation and actively competing for business, while it is understood that the Troy mill has orders which will enable it to start whenever the managers decide to resume. There are thus only three mills in the West now in the market for orders, with a fourth mill which is expected to resume op-erations in the spring, while in the East there are four mills in the market for orders, with a fifth mill ready to start at almost any time. This seems disproportioned to the wants of rom the West. In that section there will be from the West. In that section there will be a considerable length of new road built in 1884, while there are vast stretches of iron rails to be replaced with steel, and the renewals will add something to the demand. The capacity of the Eastern mills is large, and it has been increased very much in recent years, while the Eastern demand for steel rails has been diminishing. Most of the railroads in the East of any consequence now have their tracks laid with steel rails: the new Eastern roads built from year to year do not run into thousands of miles, and the demand for steel rails for renewals is comparatively light. The difference between the East and the West in respect to the demand for steel rails has been very strikingly shown during the past three months. Eastern mills have experienced much difficulty in securing orders from their own section of the country, and most of them are still actively seeking more orders, while Western orders have been far more numerous, and have enabled the mills in the West which can make rails at present prices to take all the work they want.

There are more Western steel-rail contracts to be placed, the low prices having brought out a much larger business than had been anticipated. Some of these orders will probably be placed with Eastern mills, in view of the fact that they are in a position to take business at the prevailing rates, while the Western mills which are now closed will not again be started up on rails

that they could make such a visit pleasant privileges of the Institute meetings and ex- strength of the combination among the moralize the business now in prospect, and cursions. Very little opportunity has thus men, and their ability to stand the strike cause buyers to hold off in the hope that kept so. If Eastern mills cannot secure all the work they would like to have without making to our English friends an invitation this time. There certainly was not such ing lower figures than their competitors, they pective condition in the near future, as to mills and restrict their production. An attempt to secure Western orders by offering rails at cost or below would certainly sumer of coal, is in a depressed condition, bring no advantage to the seller, while it would demoralize prices of all iron and steel until an improvement comes in this industry, products, and would inaugurate among the steel-rail mills themselves a conflict ruinous trade. The condition of the market, then, to some and deeply injurious to others. The next year's business is now in such shape that it can easily be made better or very to maintain prices, and resist the inclination to compete for orders without regard to consequences, it may be necessary for some of them to run on part time for a while, or even to shut down temporarily, but the result will eventually be beneficial to the entire trade, as buyers will have more confidence in the maintenance of prices and will place their orders more freely. The trade for 1884 will then be on a sound basis, and in all probability rails for next fall's delivery will command a little more money than \$35.

#### Undervaluations of Imported Goods.

Our manufacturers of iron and steel are interested to some extent, and it may be to a very great extent, in the revelations which have just been made by Supervising Special Agent Martin, of the Treasury Department. Mr. Martin says "that the undervalua-" tion of imported merchandise has increased alarmingly during the past fiscal year, and that the importing trade of the country is being concentrated in the hands of the agents of foreign manufacturers, who are gaining a control of the market through dishonest methods, so that the reputable merchant must either resort to the same devices or retire from the field." The undervaluation ranges from 10 to 40 and even 60 per cent. The ad valorem rates in the tariff are thus heavily reduced, making nominal duties of 20 to 50 per cent. really range from 10 to 20 per cent. only. While these frauds would seem to be possible only in instances in which ad valorem rates are levied, it happens that even specific rates are often evaded. When several be closed, and its orders not yet filled are to grades of goods are charged with specific be transferred to other mills. This leaves in duties, based upon designated values, the goods can be invoiced at rates under their actual value, and will then be thrown into a class on which lower duties are levied than business. The withdrawal from business of those which would apply if the goods were properly valued. The prevalence of the system of undervaluations is of startling produce rails at the prevailing low prices. If portions, and the offense is of such a grave character that even the New York Herald is constrained to say of it: "Now, though we believe our present tariff is in very many ways badly constructed, restrictive and oppressive, and very much needing to be reformed and simplified, yet it is the law of the land, and must be obeyed and enforced while it so remains. If dishonest importers cheat the revenue they not only rob the Treasury, but they are able to undersell and drive out of the market honest importers and merchants who obey

Among the particulars which Mr. Martin makes public concerning undervaluations is the report forwarded to the State Department by Consul-General Packard, of Liverpool, who says:

In reference to the frequent presentation offcor the country, as the orders for steel rails for mext year's delivery are and will be mainly from the West. In that section there will be express purpose of establishing fictitious val-

> Mr. Martin also states, on the authority of another diplomatic representative of United States now occupying a post in Great Britain, that while there is no difficulty in ascertaining the ruling prices of such steel products as are charged with specific duties in our tariff, information is carefully suppressed as to the prices of such other steel products as are charged with ad valorem rates. This may be a coincidence, but it appears very suspicious in view of the circumstances. Now that this matter of undervaluations has been brought forward so prominently by the officials of the United States Government, we hope that steps will be taken to thoroughly break up the dishonest practices which have thus been exposed. It is not possible to adopt specific rates universally, and, as we have shown above, even then undervaluations would often seriously affect the rate of duty, but such checks and safeguards should be established as would render this reprehensible practice impossible or at least extra hazardous. It is necessary for the security of honest importers, as well as for the perfect accomplishment of the spirit of our laws.

> The fact that manual training is meeting with constantly increasing favor is well

appears, now proposes to have its own training school, and a building for that purpose, course of erection, is now rapidly nearing little success, and there is practically no many markets of the world. reason that this Western enterprise should not meet with just appreciation.

#### Trade with Mexico.

There are few countries in the world toward which the eyes of merchants and manfacturers of other countries are directed with so much interest as toward Mexico. Countries like England, that are obliged to find a market for a very large amount of their manufactured product, are constantly on the alert to find openings for the disposal of their surplus goods. Mr. Lionel E. G. Carden. one of Her Majesty's consular officers, has prepared a report on the trade and commerce of Mexico, which has just been published in England and is attracting a good deal of attention

As is well known, Mexico is in the midst of an era of railroad building. Like a great many of the railroads that have been built in this country, it is evident that these have been constructed in advance of the wants of the population, and that, having been built for trade, and presumably for profits, steps must now be taken to induce trade to come into the localities through which these railroads pass, and thus furnish them with business. The figures of population in the States show that the Mexican Central Railroad will serve a very sparsely inhabited country for ome goo of the 1245 miles of road from Paso del Norte to Mexico. For 500 miles it will pass through the State of Chihuahua, with a population of two per square mile, and for 200 more through a State with four inhabitants per square mile. The particulars of the States through which the read passes are given below !

from El Paso. Chihuahua	Miles of rail to be run.	No. of pop.	Pop. per sq. mile.
Durango	200	199,846	4
Zacatecas	160	492,506	18
Aquas Calientes	70	140,480	48
Jalisco	35	988,444	25
Guanajuato	130	834,845	78
Queretaro	70	208,250	68
Mexico	80	710,579	90
	(COMMERCE)	A 200 (2005)	A.O.C.
Total	1945	*****	

Speaking of the effect of opening up the the Narailroads in Mexico, especially tional and Central companies, Mr. Carden expresses the following opinion:

Although it may be that these lines will not carry Although it may be that these lines will not carry very much freight across the American frontier, in view of the great distance from the manufacturing States of the Union, it is scarcely possible to look at the map without being convinced of the importance of the new routes they promise to afford for the introduction of foreign merchandise into the heart of Mexico. Without venturing, then, upon and university out, while heart of Mexico. way prediction, I need only point out, what will be any prediction, I need only point out, what will be apparent to every one, that goods introduced at Matamoras and brought over the National Railway will be able to be placed at a point half-way be-tween that port and the capital for a much cheaper ween that port and the capital for a much cheaper price than if brought from the other terminus-where the freights over the Vera Cruz Railway would have to be added, and the same will hold good as regards goods introduced at Tampico and carried over the Central Railway. It this atjument be admitted, and it is hard to see how it can be refuted, it follows that when these lines are finished all the trade of the district north of the States of Guanajuato and Hidalgo, which at present passes through the capital, will be diverted into other channels, and will probably lead to the formation of new and hidependent centers of distributions.

There can be no doubt that Mr. Carden has laid bare the inducements that were in the minds of the projectors of these roads when they decided to build them. While it is true, as is stated, that Mexico is at a great distance from the manufacturing States of the Union, in this country where a nation is orn in a day, and w ire manufactorie spring up almost by magic, as is evidenced by the building of the Bessemer steel works at Pueblo, Col., it is difficult to say what may be the manufacturing capabilities of the States of the Union near the Mexican frontier before these railroads have been finished many months.

In reference to the character of the English goods that are sent into this market, and the competition that England, as well as the United States, will meet in her efforts to maintain the share of the trade of Mexico that she has always enjoyed, and to secure more, he says :

It is the greatest possible mistake to imagine, as to the greatest possible mistake to imagine, as some mnufacturers appear to do, that this in a market where goods unsaleable elsewhere can be disposed of. As a general rule, it may be said that the intelligent Mexican is a very good judge of quality, and likes to have the best, if he can possibly afford it. In carpentering tools, for example, chisols and gouges that are not of English make can scarcely be sold here, whereas a merican axis and ancere deferences that are not of English make. can scarcely be sold here, wherens American axise and augers defy competition on account of their superior excellence, and instances might be multiplied sadedinately to show the discrimination with which every separate article is selected, according to its instace, finish and adaptability to the uses for which it is required. Moreover, it must be borne in mind that, in view of the possible development of Morico, avery country is attacked. opment of Mexico, every country is striving to increase its share in her commerce, and the competition in quality, no less than in price, is very keen. The United States considers the has the right to the largest part, and is endeavoring to secure it by means of a treaty. Germany is mak-ing great strides in steel goods, and Belgium is straining every nerve to find a market here for her straining every nerve to find a market here for her machinery and heavy castings. It is therefore Quality evident that if English manufacturers do not wish to be left behind in the race they must not rely on the former undisputed superiority of their goods trade, for the maintenance of their present trade, but materially the superiority of their goods trade. elves to meet in every item a competition which has already begun in earnest on both sides of the Atlantic.

There is one point in this that is worthy of enough to go round, and by buyers, on promoters of this enterprize are likely to the capital of Korea. Mr. Frazar was sp-

#### The Condition of Business.

of the close of the year interfere seriously with the iron and steel trades. Transactions when holidays crowd closely together, while there is still less done when everybody is on the eve of stock-taking. There have been some sales of pig iron in this market during the past week, however, notwithstanding the general disinclination to enter into fresh engagements.

Something has also been done in manufactured iron, the most important occurrence in this line having been the placing of the contract for material to build about a mile profit which now obtains. of elevated railroad in Hoboken, consisting largely of angles and channels, and aggregating some 2500 tons. The Passaic Rolling Mill Company were the fortunate competitors for this business. The miscellaneous trade in manufactured iron has been fair, and inquiries for January deliveries are quite numerous, but there is little disposition among sellers to load up at present prices.

Some sales of steel rails have been made. and it is reported that there are orders pending for several large lots. Business in miscellaneous steel products has been dull. A feature of the steel-wire-rod trade is the disposition among domestic manufacturers to as they peruse the verbatim reports returned resume operations in this line, though not from across the Atlantie. To the American long ago the business seemed to be hopelessly in the hands of the importers. The restricted demand for steel rails, and the low price at in anticipation of the emigration from the which they are now sold, have so changed old country to be expected next spring. Acthe aspect of affairs among Bessemer steel makers that those who have rod mills find they can realize no greater profit in making rails than in making rods; and fact that the period named exactly correshence mere attention is now being paid points with the continuance of the protective to this branch of manufacture. While there is but little, if any, margin in rod must be accepted as a mere coincidence. making, it will absorb a part of the surplus The trade of the country, represented by the capacity of the steel works, and is directly exports and imports, has risen meanwhile beneficial in this way. The new wire-rod mill of the Hartman Steel Company, at \$250,000,000 in 1883, and the revenue has Beaver Falls, Pa:, is nearly completed and will stook be in active operation, receiving its supply of steel billets from the Pittsburgh Persener Steel Works. This explanation will some the property of the presence of the p Bessemer Steel Works. This explanation will account for part of the dullness among the steel-wire-rod importers located here.

The nail trade is now in fair condition. with prices very steadily maintained and a good outlook for the future, caused mainly by the action of Western nail manufacturers in restricting production. While there has been no opportunity for Eastern manufacturers to meet in a body for consultation since the action of the Western manufacturers was announced, the question of shutting down the Eastern factories for at least part of January is being privately discussed, and very little opposition has thus far been expressed against such an arrangement. If the Eastern factories take a short vacation, it will undoubtedly very greatly strengthen the position of the manufacturers in both sections of the country, and the season of very low prices for nails, so confidently expected only a few days ago, may be postponed indefinitely.

#### Nominal Prices.

of the iron and steel business prices fell so fore some of the trade and mechanical assosteadily and continuously that buyers ex- ciations of the country in order to explain pected to get their supplies a little cheaper in detail how the exhibition is to be ortiations were made over a purchase of a few bars of stael of a toh of bar iroil or a dezen boiler plates, with as much deliberation as though the amount involved ran up into either natural or artificial, and is to be thousands of dollars, instead of less than a charged for at a fixed schedule of rates. were not satisfied to take brands which they knew, but they inquired of other makers, in the hope that they might find a lower-priced article to satisfy their requirements. In to purchase a supply of pig iron of a favorite brand, and inquired the price of a round lot. The terms asked seemed high, and the prove a success, it is only proper that least one of them might be able to secure cessful management should be pointed out. adhering strictly to his outside price:

when margins are close on all lines of goodson manufactured products as well as on the ous forms, from rolled beams to sheets, either materials which enter into them-it is necessary to buy carefully, for the successful manufacturer must be a shrowd merchant it embraces tin plates and many articles made if he would get every advantage possible. from them, a large and varied list of hardmaterials which is caused by producers on the one hand competing sharply with one another for business which is not large of the difficulties which the office that the double effect on prices of the difficulties which the one hand competing sharply with one another for business which is not large of the difficulties which the other terms too numer-from Mr. Everett Frazar, inviting contributions of specimens of hardware, hollow-ware, agricultural implements and mining tools, agricultural implements and mining tools, to be made, can therefore be exhibition in the Museum at Seoul, agricultural in th Quality is not the only consideration in dull ware specialties, besides plumbers' supplies

the most careful consideration, and that is the other hand, negotiating with several which for some time past has been in the that our goods, especially our cutlery and establishments to ascertain which will sell steel goods, command the markets of Mexico | the cheapest, results in such a demoralizaompletion. The school, it is announced, because of their superior excellence. We tion of the market that there are no the question of whether such an enterprise will be opened early the coming year, the trust the time is far in the future-indeed, standard prices, and the word "nominal" tuition fees will be very light, and thorough that it may never come—when it shall be only refers to a point at which negotiations their goods there, we can perhaps direct atinstruction will be given in shop work and mechanical drawing. Some of the schools maintain the standard of excellence by which it. There are indications that in some in other cities have already met with no they have acquired their reputation in so branches much less of this bargaining is now being done, but there are some others in which the practice prevails as extensively as ever. There are exceptional instances, of course, in which special arrangements The holiday season and the near approach would be made, without any regard to the prosperous or depressed condition of trade. Large orders of any kind are not usually of magnitude are hardly to be expected without somewhat elaborate negotia-when holidays crowd closely together, while under that category, and they are the class to which we look for indications of improvement in trade. Possibly the firmness in prices noted in some lines may continue to extend, so that other branches will feel the beneficial effect. That time cannot come too speedily for the producers and those who represent them, as the recent condition of trade has made the business of selling more tedious and even more expensive than it should be with the very small margin for

#### Progress of the Dominion.

The greatness of Canada just now forms a prolific theme in England on the part of public orators and the press. The Marquis of Lorne is recounting his recent experiences, and Sir Charles Tupper, the ex-Governor-General of a forther regime, delivered an address at Birmingham, in which the magnificent resources of the Dominion suffered no disparagement. In fact, the Canadian editors acknowledge that they see themselves portrayed in "glowing colors" reader these forensic efforts seem not titilike the fife and drum of the recruiting sergeant. cording to the authorities quoted, the progpolicy enforced under Sir John Macdonald from \$172,500,000 in 1878 to no less than projected interoceanic railway have already been completed, with a prospect that the enbeen completed, with a prospect that the entire route of 2500 miles will be opened for traffic in the spring of 1886. The vital importance attached to this work is indicated by the Government subsidy of \$55,000,000 to be paid to the contractors, supplemented by 25,000,000 agres of land in the fertile belt of the Northwest Territories, added to which is a converte of which is a guarantee of 3 per cent, for ten years on all the outstanding stock of the Pacific Railway Company. With all these advantages the Dominion will find the United States a lively competitor, and for one special reason paramount to all others—that the paradise which has Winnipeg for its capital was unfortunately located several decrease to for parth. degrees too far north.

#### A Permanent Exhibition Experiment in Chicago.

A permanent exhibition of building materials is about to be opened in Chicago. A local architect is the author of the scheme, and, if we mistake not, is to be the manager of the enterprise. Circulars concerning it have The past fall hall withdesed a very peculiar or less advertised in the technical press. The condition of trade. In almost every branch promoter of the enterprise his appeared beevery time they laid in a new stock. Nego-ganized and conducted. Extensive rooms have been engaged, extending from Wabash Avenue through to Dearborn Place. Space will be allotted for the display of materials, hundred. Those who had to buy pig iron Attendants in the employ of the exhibition company are to answer questions and explain things as required, and visitors are admitted free of charge.

It may be considered unfair to judge of an some cases buyers attempted to be so shrewd enterprise of this character before actual that they overreached themselves. We re- trial has demonstrated either its value or its call an instance in which a firm was anxious deficiences. Since exhibitors, however, are required to risk the cost of making their displays simply upon their faith that it will firm employed several brokers to conduct the scheme should be carefully studied negotiations, in the evident belief that at and that the principles underlying its sucthe iron at a lower rate. But the result Building materials is a very comprehensive was different, though it should have been term. It embraces many articles, ranging plainly foreseen. There were so many in- from building stone direct from the quarries quiries that the maker felt warranted in and brick from the kiln, on the one hand, to the finest wrought decorations on the other. Of course, at a time like the present, Of those articles in which our readers are specially interested, it includes from in its variplain or galvanized; it includes ranges, furnaces and other forms of heating apparatus

pleteness.

will prove remunerative to those who display tention to some features, a consideration of which will be profitable to proposed exhibitors. Some of the merits of the plan named seem to be a minimum of expense and trouble with the largest publicity. The general public, however, are not exactly the class to which makers of building goods appeal when they attempt to obtain a trade. When they make exhibitions at industrial fairs, instead of trusting their displays to ordinary attendants, the proprietors themselves, or the best men they have in the establishment, are present, and they carefully discriminate in their curiosity-seeking visitors of no particular We think the projectors of this enterprise will be very fortunate if they secure attendants who can describe at random the goods of, say, a dozen competing exhibitors with sufficient intelligence and accuracy to do none of them real harm.

The chances, we fear, are somewhat against the success of the proposed exhibition on its present basis. There is danger of staple articles being left out, because there is no special advantage to any one from showing them, and of the exhibition becoming a disportance to builders and architects, however interesting they may appear to the general public. This result is almost certain building materials worthy of the name, the and articles of the greatest interest to mechanics and all who have to do with buildings would have to be shown at the expense of the enterprise itself. A full display of the resources of even one section of this country cannot be brought about in any other way, but, if once obtained, and then supplemented by such things as it may be to the interest of manufacturers to pay for exhibiting, a fair would be inaugurated which

and visitors. A properly organized exhibition of buildof interest and importance, it would contain models of different constructions of tin, iron, slate and composition roofs. Various schemes of joinng and erseting cornices and other kinds of sheet-metal work would be shown. Plumbing work would be also displayed in all its details, from the simplest work to the most which intelligent mechanics generally desire to study would be included. Such things, it is obvious, are not particularly in the interest of minufacturers and mechanics to show, and, therefore, they would be conspicuous by their absence unless a special effort was made to obtain them. Various attempts is obvious, are not particularly in the interest of minufacturers and mechanics to show, and, therefore, they would be conspicuous by their absence thieses a special effort was made to obtain them. Various attempts have been made to secure a comprehensive exhibition of building materials in this country, but so far all of them have failed. If the Chicago scheme is to be pushed to completion, we sincerely hope its managers may realize it an early stage the necessity of securing the ordinary and the common in building practice, as the proper and necessary setting of those modern improvements which mensurate with its importance, they are likely to meet with abundant success.

notice that at the beginning of the new year they intend making a reduction in the wages of the workers employed at Eston, amounting to 10 per cent. in the manufacturing department and 5 per cent. in the engineering department, giving as a reason that at the present rates they are unable to compete with other districts. These reductions are not as great a percentage as those that have ade at the steel works of the United States, but, as the wages in this country are o much higher than those in England, it is ossible for the men to endure a larger re

A feature of 1884 in the way of industrial expositions will be the Cotton Centennial, to he held at New Orleans. The directors having in charge this enterprise are acting with commendable promptness and energy, and from all that can be foreseen at present the building will be in readiness and every arrangement perfect for a successful exposition. Plans submitted by R. M. Torgenon, of Meridian, Miss., have been approved. According to particulars which have reached According to particulars which mayor reached us, the building will be 1500 feet long and 900 wide, affording nearly 1,400,000 square feet of floor space, and covering about 31 acres, as compared with 21½ acres occupied

encounter, we think, will be the lack of com- pointed a commissioner for this purpose by the Korean Minister before his departure Without attempting to definitely answer from this country, and a more judicious to question of whether such an enterprise selection could not have been made. Mr. Frazar is a gentleman prominently identified with the Chinese and Japanese trade, and is deeply interested in promoting more in-tin ate relations with the Oriental countries, and especially with Korea. We hope that the trades we address will take advantage of the opportunity to communicate with Mr. Frazar, and that such of our manufacturers as desire trade connections with Korea will avail themselves of his intelligent services

#### Mr. Shriver on Steel Rails and the Tariff.

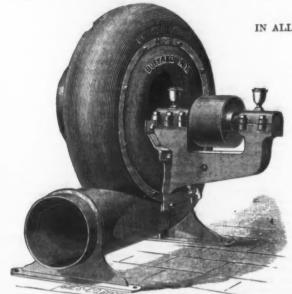
Mr. E. J. Shriver, secretary of the New York Metal Exchange, sends us the followexplanations between interested buyers and curiosity-seeking visitors of no particular conception and a comprehensiveness of misinformation which disarm criticism, as does his imperturbable good nature. Mr. Shriver's literary and oratorical indiscretions are probably due to youth and inexperience, from both of which he will recover in time: NEW YORK, December 21, 1883.

To the Editor of The Iron Age: DEAR SIR: It is with great pleasure that I find myself able to make some slight return for the kind way in which you speak of me this week, by sharing with you some of that information in which you give me the credit of holding a "practical monopoly," and the want of which has betrayed you into a few play of patented novelties, with those things trifling errors. You have noticed among predominating which are of the least importance to builders and architects, howhave been entered since the reduction of duty, and you jump at the conclusion that these rails were competing with home manuwith the scheme resting solely upon an ad-vertising basis. To make an exhibition of question you would have found that they were only entered in bond in transit to scheme must be broader. Many materials canada, Mexico and the West Indies. A and articles of the greatest interest to this, for at the lowest price which rails have touched in England, the bare cost of importation was not less than \$38.50, even if paying the \$17.92 duty; while since the duty was reduced from \$28 to \$17.92, the price of American rails has never been over \$38. Importers don't do business for love. Of sourse, in 1882, before the price fell below \$55 here and £5 abroad, we imported rails to lay, but as Bessemer pig was worth \$28 then, against \$20 now, there was an apparent would command wide attention, and be remargin of profit to our steel men of \$12 to munerative alies to projectors, exhibitors \$15, due to the tariff, until they began to mpete with each other to such an extent as to bring about a decline of \$20 in less than A properly organized exhibition of build-ing materials and building construction would possess great interest. Among other matters and the Mexican systems, but their pig iron costs them now \$8 a ton more than the Englishmen pay, and so it costs us from \$5 to \$10 more to make rails, even where there is modern machinery. It is hardly necessary to tell any one conversant with the subject that most of our steel plants are behind the age in labor-saving appliances, which have not been introduced for the simple business complex. The principles of heating and reason that with a \$28 tariff and plenty of ventilation would be practically illustrated orders the profit was so large that it paid by working models, and many other features better to run on the old methods than to stop long enough to make improvements that in some cases amount to a remodeling of the entire works. All of which is so much of a

setting of those modern improvements which enter so largely into the first-class structures of the present day. Realizing the necessity of this course, and acting promptly and planning the enterprise on a basis commensurate with its importance, that are regard for the consumer; but now the furnaces are competing with each other, first to buy material and then to sell their product, so that their profit has gradually been ground down to an invisible point. The reduction in the wages of labor at the steel works does not seem to be confined entirely to the United States. Messrs. Bolckow, Vaughass & Co. have given their steel workers of \$6.72 has disappeared in those "practical of \$6.72 has disappeared in those "practical of \$6.73 has disappeared in those "practical of \$6.74 has disappeared in those "practical of \$6.75 has disappeare monopolies"—the ore-beds and coal-mines monopolies—because there are a certain fixed number of them, while blast furnaces can be, and are, increased indefinitely. Ore and coal are too bulky to import, except in comparatively small quantities (we imported ast year 600,000 tons of ore, but used in making iron 9,000,000 tons), apart from the duty on them, so that the home producer has complete control of the market, and can exact for his wares the whole of the advanced price which the pig-iron maker receives by virtue of the tariff. Of course, if there were no tariff the iron manufacturers there were no tariff the iron manufacturers would not gain all that the ore producers would lose, but they would no longer be at the mercy of the latter, since these could not export their ore, and, to have a market, must sell at a price which would keep the furnaces in blast. Moreover, instead of the furnaces in blast. whole being periodically choked by overproduction, there would be an overflow in an export demand for all kinds of iron products. The fact is that the American iron manufacture has grown beyond the protective tariff, and, while it is only natural that any set of usiness men will defend legislation in their interests, even if it may be detrimental to others, the tariff of 1861 is by no means suited to the business of 1883. I find on the next page to your editorial a letter from the next page to your editorial a letter from acres, as compared with 21½ acres occupied by the main building at Philadelphia. There will be a music hall in the center, with a capacity for seating 12,000 people. The building is described as having several towers, with no dome. It will be lighted from the sides. could make more money by a new policy

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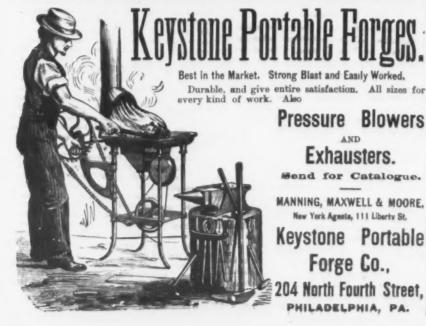
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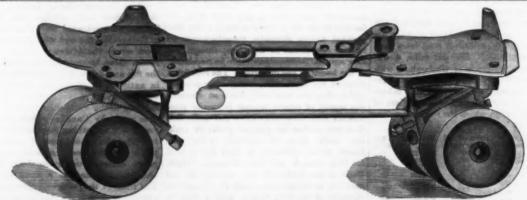
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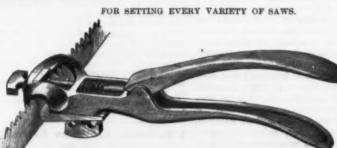
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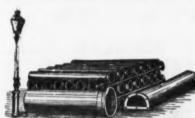
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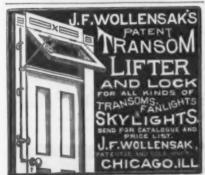
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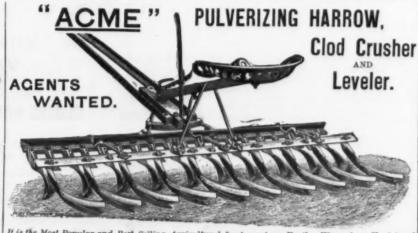
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(Continued from Page 13.)

ning of the month to \$4.55 at its close. Lon don opened at £15. 1/3, and closed at £15. European Spelter production in 1882 had been 245,000 tons. Spain exported Calamine during the first five months to the extent of 17,258. against 14,700 in 1882; its export thereof had been 39,758 tons in 1881; 36,415 in 1880; 42,778 in 1875, and 50,707 in 1870, while in 1865 it did not exceed 20,557 tons. Metallic Spelter—Spain produced in 1881, 7032 tons; in 1880, 4221; in 1875, 381; in 1870, 3785, and in 1865, 1325. September opened at \$4.50; subsequently some little stir was produced, but it was short-lived and the market closed dull at \$4.20. London stood early in the month £15, but grad-17,258, against 14,700 in 1882; its export don stood early in the month £15, but grad-ually recovered to £15, 1/3, the closing fig-ure. The net import of Spelter into the United States had been during the fiscal United States had been during the fiscal year ended June 30, 7734 tons, against 8226 the year preceding. Spain exported during the first six months of 1883, 20,762 tons of Calamine, against 17,651 in 1882. October opened in New York at \$4.52\frac{1}{2}\$, and closed at \$4.50. The market remained lifeless and uninfluenced by some improvement in Europe, where rumors of the formation of a new syndicate again circulated. London new syndicate again circulated. London opened at £15. 8/9 and closed at £15. 10/, net. Imports of Spelter into the United States during the first seven months of the year, 3946 tons, against 6730 tons in 1882. Spanish Calamine exportation during the first seven months, 23,757 tons, against 19,029 in 1882. Russian importation during the first six months, 1826 tons, against 866 in 1882. Both November and December remained excessively dull months, the price not varying from \$4.37\frac{1}{2}\$, while in England November opened at £15. 10/, but was barely sustained thereat during that month and in December. Toward the end of the and in December. Toward the end of the year intelligence reached New York from the River Plate region to the effect that Galvanized Barbed Fence Wire is now chiefly imported there from France, and that the barbs are rounded and not pointed, the owners of flocks of sheep preferring this kind of barb, because on pointed barbs the wool gets entangled, and it is said that they injure the animals. Spelter has throughout the year 1883 been unfavorably influenced injure the animals. Spelter has throughout the year 1883 been unfavorably influenced by the slack demand for all galvanized goods; that for Galvanized Wire in par-ticular has fallen off very much. While this was the case, and some importation of Spelter was still going on, our production has evidently been in excess of the require-ments of consumption and in this manner. ments of consumption, and in this manner the price has been kept low. Net import of Spelter during the first nine months, 3237 tons, against 8349 in 1882. Calamine exported from Spain the first nine months, 26,674 tons, against 23,460 tons in 1882, and 25,861 in 1881.

LOWEST AND HIGHEST PRICE OF COMMON SPELTER-

	Ci	ELIS LEE L	DUND.	
	1880.	1881.	1882,	1888.
Jan	614 @ 614	514 @ 516	534 @ 6	456 @ 434
Feb	634 @ 636	514 @ 516	536 @ 6	456 @ 494
March .	634 6 7	5 @ 516	596 @ 594	456 @ 434
April	6 @ 634	436 @ 514	534 @ 534	434 @ 436
May	6 @ 614	436 @ 536	534 @ 594	456 @ 434
June	5% @ 5%	436 @ 516	5% @ 5%	414 @ 434
July	5 @ 514	436 @ 536	514 @ 516	436 @ 456
Aug	516 @ 516	5 @ 516	514 @ 5%	4% @ 4%
Sept	516 @ 516	5 @ 514	514 @ 536	434 @ 436
Oct	5 @ 516	5% @ 5%	514 @ 596	436 @ 456
Nov	436 @ 5	5% @ 5%	414 @ 514	496 @ 416
Dec	434 @ 436	536 @ 6	434 @ 436	436 @ 436

#### Tin Plates.

Coke Tin opened the year at \$5.25 and dull, under the unfavorable impressions produced by the failures of makers in Wales toward the close of the year just ended, and, furthermore, kept inactive by impending action in Congress, considerable uncertainty overhanging notably the duty modifications in store for this article. All this caused a decline in January to \$5.18% @ \$5.20, at which figure Coke Tin closed. In February a better tone began to prevail in consequence of the reduced output in Wales, and Coke Tin, under a fair demand, recovered during Tin, under a fair demand, recovered during the month to \$5.12½ @ \$5.24. In March still more favorable views obtained, and as the demand came forward vigorously, Coke Tin advanced to \$5.12½ @ \$5.37½. April remained barely steady at \$5.12½ @ \$5.25; total export from Wales in 1882, 265,021 tons, against 243.381 in 1881, and 217.718 in 1882. total export from Wales in 1882, 265,021 tons, against 243.381 in 1881, and 217,718 in 1880. Of these amounts the United States received in 1882, 214,552 tons, against 179,843 in 1881, and 164,167 in 1880. Early in May an effort was made to break the market, large lines of Coke Tin being sold at \$5.05 but the market finally with the market large lines of Coke Tin being sold at \$5.05, but the market finally rallied to \$5.15 @ \$5.30, and remained so during the following month. In July 1, when the new duties became operative, reducing that on Tin Plates reduced on this side, while the demand now manifested itself vigorously. In this manner the price for Coke was firmly established at at \$5.12½ @ \$5.25. During the first seven months of the fiscal year the Ricks, and had filed their petitions and had at \$5.12½ @ \$5.25. During the first seven months of the fiscal year the net import into the United States had been 198,641 tons, against 178,742 the previous one. August opened at \$5.071/2
@ \$5.15, and, with a moderate but steady demand during the month, closed at \$5.05.

@ \$5.25. September proved rather a disappointment; nevertheless, prices were tolerably well sustained and closed at \$5.05.

@ \$5.15, Coke. During the first six months of the year the net import had been 104,652 tons, against 112,689 in 1882. In October there was so much competition among importers that a decline of 12½ \$\frac{1}{2}\$ box was established. Soon after the retrograde which the original creditor's bill and the apmovement in raw material commenced in pointment of the receiver were made—the England, carrying down the price of Coke in grounds upon which the court originally Liverpool to 15/9 and to \$4.90 @ \$5.05 in New York. Net import into the United New York. Net import into the United States the first nine months of the year, 167,-607 tons, against 164,590 in 1882. A fact which should not be left unnoticed is the increased consumption, which has grown up State, and some of whom held liens by attachments in the State of Pennsylvania, all attachments are stated as a state of Pennsylvania, all attachments are stated as a States, selling at \$5.37½ @ \$5.75 during the latter part of December. These Plates are used for stamping, and they are retinned if the goods made from them are to be fine. Eventually, it is expected they will become their bills, the object of which was to a formidable competitor with Charcoal Tin.
The following tables will show the average range of prices of Tin Plates (ordinary that the judgment being paid, the jurisdiction

brands) at New York on the 1st of each

month, 1879, 1880 an	d 1881;	
18	879.	
January         \$3.83           February         5.70           March         5.75           April         5.67           May         5.66           June         5.43	August	\$5,50 5,40 5,57 6,66 7,28 7,11
18	880.	
January     \$6.11       February     8.72       March     8.68       April     8.00       May     6.75       June     5.88½	August September October November	\$5,49 5,70 5,78 5,46 5,40 5,39
18	881.	
January         \$5.82           February         5.82           March         5.87           April         5.87           May         5.27           June         5.42	August September	\$5.42 5.52 5.47 5.52 5.82 6.25
PREVIOU	S PRICES	

W 1 4 1001 00 01	
July 1, 1874\$8.71	February 28, 1878\$5.66
April 28, 1876 6.58	March 31, 1878 5.66
May 5, 1877 5,97	April 30, 1878 5.73
September 7, 1877 6.00	May 31, 1878 5.37
October 19, 1877 5.97	June 15, 1878 5.32
December 20, 1877 5.85	July 15, 1878 5.88
	October 3, 1878 5.18
January 1, 1878 5.75	December 18, 1878 5.28

#### Brown, Bonnell & Co.'s Affairs.

In the United States Circuit Court, at Toledo, on the 18th inst., the matter of receivership of Brown, Bonnell & Co. came up for a hearing before Judges Baxter and Walker. The Pittsburgh Despatch says:

The case attracted a great amount of inter-st because of the large amount of money inest because of the large amount of money involved and the intricate question of law presented. There were present in the court room an unusually large number of attorneys, those specially interested in the case being Hon. R. P. Ranney, Judge J. W. Tyler, Francis J. Wing, Henry F. Sherman, Wm. B. Sanders, A. St. J. Newberry, M. R. Keith and C. C. Baldwin, of Cleveland; Asa W. Jones, of Youngstown; Henry Crawford, of Chicago, and Solomon Schoyer, of Pittsburgh. In February, 1383, the Negaunee Concentrating Company recovered judgment against Brown, Bonnell & Co. in the United States Circuit Court at Cleveland for \$5100, and thereupon said company, together with the

thereupon said company, together with the Jackson Iron Company and the Lake Superior Iron Company, filed a bill in the same court against Brown, Bonnell & Co., alleging their insolvency, and Fayette Brown, of Cleveland, was appointed receiver and put in charge of the company's property, and has operated the same since with very great success, as evidenced by the fact that he has made net for the creditors over \$120,000 by the operation of said works. The case pro-ceeded in due manner until a supplemental bill was filed alleging that certain other conditions had arisen after the filing of the original bill. Among others it became evident that the assets of the concern would not be sufficient to pay the debts of the company in full; that there was a certain liability of the stockholders under a provision of the statute which it would be necessary to enforce through a receiver. Upon the filing of said bill an order was made authorizing publica-tion, requiring all creditors to give in full their claims and to come in and file them by a petition setting forth the amount due, together with the security they held for the same, if any. Under this order over 176 creditors filed their claims in the clerk's office of said court, claiming an aggregate amount of \$1,250,000.

Thereupon an order was made, referring the case to A. J. Ricks, as special mas-ter, to ascertain the amount due upon each one of these claims, the liens of the same and the priority of such liens, if any; how secured, and whether such security was valid. Under said order of reference the

When the case was at this stage in the United States Court the papers announced that Mr. Henry Crawford, of Chicago, acting under authority claimed to have been given him by Herbert C. Ayer, as president of Brown, Bonnell & Co., appeared in the Court of Common Pleas, at Youngstown, and upon behalf of the company confessed judgment in favor of some 3 or more creditors. become parties to the suit in the United States Court under the order allowing the supplemental bill, as above stated.

After such judgments were obtained in the

Court of Common Pleas, Mr. Crawford, as Court of Common Pleas, Mr. Crawford, as attorney for Brown, Bonnell & Co., went to Cleveland and paid into the Clerk's office there the total amount due upon the judg-ment of the Negaunee Concentrating Comobtained jurisdiction were removed and the jurisdiction for that reason ceased to exist.

# WHOLESALE METAL PRICES, December 26, 1883.

(For Wholesale Hardware Prices, See Pages 27, 28.)

#### METALS.

the statement of the st
IRONDUTY: Bars, 8-10¢ to 11-10¢ @ 5; pro-
than 35%. Sheet, 11-0¢ to 15-10¢ & B. Band, Hoop and Scroll, 1¢ to 14-10¢ & B. Railroad Bars weigh-
ing more than 25 th @ yard, 7-10¢ of 1¢ @ th.
American Iron.

Foundry No. 1.		19	ton \$20.00	@ 22.0
Foundry No. 2			ton 19.00	) @ 20.0
Gray Forge				@ 19.0
	Scotch	Iron		
Carnbroe		99	ton 21.00	@ 22.0
Coltness			ton 22.50	@ 23.0
Shotts			ton 22,50	0. 28.0
Glengarnock			ton 21.00	@ 22.0
Gartsberrie			ton	@ 23.5
Langloan			ton	@ 23.0
Summerlee	*******	P	ton	@ 22.5
Dalmellington			ton 20.00	@ 21.0
Eglinton				@ 20.0
	Ra	11s.		
Steel, at Eastern	mills		ton	@ 35.0
Old Rails, Ts				@ 22.5

Wrought, ₹ ton, from ship and yard..22.00 @ 24.00

Mar Iron from Sto	re			
Common Iron:				
34 to 1 in. round and square ( 19	95	9	a	2.10¢
% to 1 in. round and square	an v	~	dib	4.104
Refined Iron:				
1 to 6 in. x % to 1 in	95	0 00	0	9.804
1 to 6 in. x % to 1 in	TO.	10.40	dh.	4.009
1 to 6 in v1/2 and 5-10	TD	2.40	(a)	2.50e
Rode_56 and 11-16 round and sq., W	TD	2,80	(Ch	2,40€
Bands-1 to bad-10 to No. 12	257	4.00	459	W. Cal
"Burden's Best" Iron, base price			la 110	0.05
Ulster Iron, base price			9 B	0 8.70
Norway Nail Rods		534	@	536¢

Sheet	Bron.	-
	Common	R. G.
	American.	American.
Nos. 10 to 16 19 1b		4144
NOS. 10 to 10	9.05 @ 9.504	4124
17 to 90 10	0.27 (0 0.00	17.97
21 to 24	3.50 @ 3.70¢	4560
25 and 26 10 10	4.00 @	4940
27	4.00 @	4940
28	4.95 @	5e
AD	B. B.	2d qual.
Galvanized, 10 to 20	10 th 63/4¢	6 ¢
Galvanizad 21 to 24	W ID 7146	63.60
Galvanized, 23 to 26	. W to B e	7 6
Galvanized 27	WE NO DAME	7340
Galvanized, 28	W ID 9 ¢	8 ¢
American Russia	10 1016¢	B. 916e
Russia	30 m 10	0 140
Russia	23 %	0 7164
American Cold Rolled B. B	Character Inches	(D 1584
Iron Wire.	See Wire.	Po vol.

#### American Cast Steel. Euglish Steel.

Dest Cast.	
Extra Cast	
Circular Saw Plates # 10 13 F	
Round Machinery, Cast	
Swaged, Cast # ID 17 @	
Rest Double Shear B ID 15166	
Dileton 1st suplifier 30 m 13 C	
German Steel Best 10 to 10 ¢	
Binster, 1st quality German Steel, Best 9 b 10 c 2d quality 9 b 9 c	
8d quality B B 8 ¢	
Sheet Cast Steel, 1st quality 151/90 ID 151/90	
2d quality 141/96	
3d quality 9 to 1914	
ad quanty	
TINDUTY: Plates, Sheets, Tagger and Terne,	
1¢ % to ; Bars, Block and Pigs free.	
Banca @ 22 ¢	
Straits W 10 @ 21/90	
Ericliah @ 21160	

Bk							0.1			0	0						0			۰	٠	۰	· 30	200		۰		٠	700	-
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x14	3		2	92	6 1	g.l	a	BI	B	tı	8								3	β		b	ox	8	6,	.(	Ю	16	0	\$6.
beds	ď	1	19	B			6	4					0	D			0 0				6	6		1	2	,į	50	) (	0	18.
bx14	ij		9	9	5		6	10								0	۰	۰			-	14		1	ľ.	2	5	(	0	8.

I C MUXXIS, 112			0	0.1		0	0 0		TW'OO ATD	10.00
I X 10x14   225 I X 12x12   225	6.6							44	7.25 @	8.00
1 X 14x20, 112	64							6.6	7.25 @	8,00
D C 1216x17, 100	66							6.6	@	6,00
D X 1934x17, 100	66							4.6	@	7.50
For each addition	onal .	X	a	d	d			5.6	@	1.75
C	oke		¥	'n	n	ı		late	n.	
			_			E	lee	it.	Ordin	ary.
I C 10x14 )						e	N. 1	0.2	\$5.1236 @	85.95
I C 10x14 }						e	4344	,,,,,,		
I C 12x12							!	5.6234	@	5.8716

I C 19x12
1 C 12x12 (B 0.0179
I C 90x28, 112 sheets 10.75
Terne Plates.
Prime Char. 2d. quality Coke.
I C 14x20 M. F. @ \$7.75
1 C 14x20\$514 . \$514 @ \$596 \$5 @ \$5.25
1 X 14x307.00 @
I C 20x2810.75 @ 11.25 10.50 10.00 @ 10.50
I X 20x2814.50 @
I C 20x20013.50 @

Tin Moller Pinten.
IXX 14x26, 2 sheets for No. 7, 112 sheets @ \$13.50
IXX 14x28, 2 " No. 8, " @ 14.50
IXX 14x31, 2 " No. 9, " @ 16.00
COPPER.—DUTY: Pig, Bar and Ingot, 4¢; Old Copper, 3¢ \$\overline{\psi}\$ D. Manufactured (including all
articles of which Copper is a component of chief
value), 35 % ad valorem. Ingot, Lake

Ingot, Lake	lis Ip	14160	60	16	60
Braziers' Copper, ordinary sizes, 16 oz. W sq. ft. and over	9.0		.20	or	
Braziers Copper, ordinary sizes, under 16 os. and over 12 oz. W			40	100	Y
sq. ft	86		0	27	0
Braziers' Copper, 10 oz. and 12					
oz. W sq. ft	**	*****	0	30	4
Lighter than 10 oz. W sq. ft	44		@	38.5	6
Circles less than 84 in. in diam	44				9
" 81 in. diam. and over	**	*****			4
Segment and Pattern Sheets		****			6
Locomotive Fire-Box Sheets	88		0	100	F
Sheathing Copper, over 12 oz. W	**				
8q. ft	**		0	253	6
Bolt Copper					6
Copper Bottoms, 14x48		"	60	35	P
Tinned Sheathing, 14x28, 14, 16,	**		_	00	
18 oz	**		0	20	8
Tinned Sheathing, Planished, 14	**		_	-	
x48, 14, 16 oz	**	*****	(0)	34	9
Tinned Sheathing, Planished for	4.6		_	13.45	
boilers, 7, 8, 9 oz	**	****			0.0
Nickel-Plated Sheathing	**	****	00	38	8
" for boilers			60	40	6
Plating extra		25 ¢	40	40	è

14x48, by the case # sheet, 84
14x8, less than case # 844
For tinning both sides, double the above amount. O'Neill's Patent Planished Copper, Not.

0°NeilPs Patent Planished Copper. Net. 14348
12 and 16 oz. and heavier. 35¢ By the case. § B 34¢ 12 oz. and lighter. ..... 38¢ St. 37¢ St. 1455. Sin., 14x50. 9 in., 14x60.
14 and 16 oz. and heavier. 37¢ By the case. § B 36¢ (And all sizes not over 20 in. wide.)
14 and 16 oz. and heavier. 37¢ By the case. § B 36¢ (And all sizes not over 20 in. wide.)
14 and 16 oz. and heavier. .... 8 B 39¢ 12 oz. .... 42¢

Copper Wire, -(See Wi Sheathing Metal.

BRASS AND GERMAN SILVER.

Brown & Sharpe's Gauge the Standard for Metal; Old English Gauge the Standard for Wire. BLASS MANUPACTURES PULCE LIST.—DIS. 35 5 For less quantity t Ian 100 B, add 36 2 B.

For less quantity than 100 B, add 37 & B.

High Brass.

All Nos. not thinner than No. 28, wider than 2 in., not wider than 14 in.

All Nos. to No. 25, inclusive, and widths over 14 to 20 in., inclusive.

35c All Nos. to No. 23, inclusive, and widths over 20 to 37 in., inclusive.

35c Y B advance on each No. above Nos. 28 to 83, inclusive. usive.
rass thinner than No. 38 is Platers' Bruss, at 536
Wire ar
s 24x48 in., and all sheets cut to particular
es and lengths under 30 m., in width wider
Twelve to No. 36.

	Printers' Rul Sheets wider	than 30	in. and in. and	un	der r	40 in		47¢
	Circular sheet	ts, in dia	m. fron	n4i	n. to	14 in	clusi	ve.40¢
1	66	6.6	over		66	20	6.6	.45¢
1	66	6.6	4.6	90	6.6	80	6.6	.49¢
	6.5	6.6	8.6	90	6.6	40	6.6	.55¢
	44	66	9.6	40 i	n			59¢
		Lo	w B	as	s.			
	Four cents &	D more	than I	High	Br	ass.	rage	

Plain to No. 20, inclusive, above 1/4 in. to 3 in. . \$0.43 Nos. 21, 22, 23, 24 advance on List for each Number.

Nos. 24, 25, 26, 4¢ advance on List for each Number. 

3-16 in.

3-16 i Miscellaneous, -Dis. 80 %.

High Brass....Scrap.—Net. \$0.10 Low ".11 Gliding. .13 Turnings, Filings and Chips half the price of Scrap. Terms—Net cash. Interest to be added after

	Ge	rmal	a SI	lver	Tubir	ng.—dis	1 30 %.	
4	per c	ent		\$0.50	15 per	cent		\$1.2
6	per e	ent		.90	16 per	cent		1.4
9	per o	ent		1.00	18 per	cent		1.8
12	per o	ent		1.20	20 per	cent		1.6

				MINT'K	GR SYGGEN	* AA IL
4 x	er cen	t, 12 in. to	No. 26	3	80.52	20.
6	6.6	6.6	0.0		.56	
10	4.6	6.6	6.6		.64	.1
15	66	44	41		.74	1.0
18	44	6.6	6.6		.80	1.
ing A abo Nos A	12 b, 8 dvance ve 12 i . 26 to Il Gern	Silver Sh 31; more 2¢ for n., and 2¢ 36, inclus nan Silver addition	than 16 each a 19 10 o ive.	dditional n each N	lb. inch i o. thing	n widt
G	erman	Silver Sc	rap, on			

LEA	s an																			fy.
Amer Bar Pipe. Tin L	can	 			 		0	ï				 						.4	36	0
Bar		 				 				. ,	0	 	0					11		
Pipe.		 		0	 			۰	0 1		b			0 -		. ,	6	4	ŗ,	di
Tin L. Sheet																				

	I NACIA ISL.		
00	Metallic, in grains	10 Th	8
00	Metallic, in grains, \$\text{\text{\$\gamma}}\$ 100 lb lots		
00	Metallic Anodes\$1.	85 @	4
50	Nickel-Plating Materials		
75	Composition, Cutting		9
-	Composition, Cutting in bbls	0.4	•
	Composition, Emery Cake	6.6	
	Composition, White Tripoli	6.6	
(3)	Suiphate and Aminonia	46	
16	Nickel, Chloride and Ammonia	0.6	
15	Nickel, Chloride and Ammonia	0.6	
75	Acid, Muriatic, 30°	0	
-	Acid, Nitric, 38°	0	
- 1	Acid Sulphuric 66°	9.0	

1	Acid, Sulphuric, 00°	
ı	Rouge, hard and soft, for Nickel "	
1	Ammonia Water, 26° U.S. P	
1	Potassa Caustic, pure white	- 1
1		0
ı	ANTIMONY.	
I	Hallett's \$\mathcal{P}\$ \$\mathbb{D}\$ 10% @ Cookson 11½ @	
l	SPELTER—Duty: Pigs, Bars and Plates, \$\overline{2}\$ 100 lbs.  American, cash	
۱	ZINC-Duty : Pig or Block, \$1.50 \$100 Sheet, 2466 \$10.	
ĺ	600 th coules 534 @ 524	C 00 8

- 1	and the second s	
1	Zine Tubing—Dis. 25 %.	
1	Plain	
ı	Fancy	
ı	Plain Fancy Scotch and Extra Patterns.	
1	PEA BEREN TO THE REAL A. R.	
١	N. P. U. A, 28¢; B, 23¢; C, 14¢.	
ı	A, 28¢; B, 20¢; C, 14¢.	
I	WIRE.	
1		

Nos. 00	to 9,				15, 10,		18.
	10	11		1236	14	15	16
Bright	Marke	t Wire.			dis 57%	@ 60	0 4
66	Chare	oal			dis 45	60.47	7360
4.0					dis 55		
Anneal		ket Wir				-	1.10
66	Fence	Wire, N	os. 8 r	and 9. 5-6	lis. 5734	@ 60	9
		Wire, N					-
0.6	Bessen	ner Stee	l Wire		lis. 5916 lis. 5916	@ 55	- 1
Copper	red Mar	ket Wir	9		lis. 5016	On 58	- 5
COPP.	Bal	a Wire.	Nos. 2	to 12d	lis. 50	GR 58	16 6
Galvan	ized M.	arket W	ire		in 45	O 42	14.4

MINER	1870	F	BENC	e W	re.	*****		dis.	45 €	b 473	61
	8	tor	ae	or	W	eav	ing	W	Tre.		
los											
cents		14	15	16	19	20	21	253	28 24	125	200
BO		27	1205	259	80	81	95	88	84 85	36	
ents		195	139	30	85	48	35	37	40 45	55	
ios. 16	to	18						.dis.	5736 6	6.60	8
19	to	26						. 66	60 6	0 621	65
27	00	36						. 66	01119 6	6 65	1

Cent	8		1	æ		2	39	١	8	0		8	3		3	ੀ	3		8	5		37	40 -	15	55	
Nos.	16	to	1	8.																		dis.	5734	60	60	9
	19	10	2	8.							0 :							10		۰		. 85	60	60	6214	1 %
	27	00	3	ő.											,		. ,					. 66	6234	60	65	1
Galv	an	ize	d	8	t	0	n	B	W	Ù	ne	à.										. 0.0	45	a	4734	1 %
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Brass	and Copp	er Wire,	
	Dis. 80 @ 35	%. G	ild'g and
	High Bruss. L	ow Brass.	Cop'd.
0 to 20	80.33	80.87	80.46
21		.40	- 46
22		. 41	.47
28		. 42	.48
24	40	.44	.50
25	43	.47	.58
2G		. 49	.55
27	48	. 652	.58
28		.50	. 63
90		.50	.66
3.)		. 62	.732

9. 3.)	.62	. 72
5. 81	. 66	.78
5. 8£	.70	. 164
. 33	.74	.98
. 84	.78	1.08
Spring Wire, 20 P % adva		
Flat, Square and Half-Re	ound Wire, 5¢	W B ad-
nce on Round Wire.		
Fancy Wire, not less tha	n 10¢ pl 10 ad	vance on
ound Wire.		

	Fancy Wire, not less than 100 p to advance on
ė	Round Wire.
	Brass Rods, No. 8 and larger, not less than 2 ft.
ř	lengths, 28¢.
	Wire straightened and cut, smaller than No. 8
	and not less than 2 ft. lengths, 437.
p	Wire and Rods less than 2 ft. lengths, special
	rates.
	Twelve cents W B extra for spoolin : on 1 3 spools

MISC	ELL	A	N	K	1	)	U	-		1	T	1	I	V.	N	1	E.	R	L	8	9	5	37	E	•	C	
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16 8 36	, Warr	an	ti	ed	١.			٠																		.1	4
Extra.																						v				.1	믜
No. 1 I	tefined wiping																									.1	1
No o	6.6																									11/	ΩII

No. 2 "
Extra wiping11 ¢
Rivets.
Iron and Tinned, new list, Dec. 10, 1881 dis. 40 \$
In bulk, new list, Dec. 10, 1881dis. 40 \$
Copper Rivets and Burrs dis. 50 %
Nos., 7 8 9 10 11 19 18 14 15
10 lb 49¢ 50¢ 52¢ 54¢ 56¢ 58¢ 60¢ 65¢ 70¢
Stove Bolts,
American Screw Co.'s dis. 50 %
R. B. & W
R. & E. Mfg. Codis, 50 %
GLASS.

	t per box of 50 feet. July 2, 1883.
	Single.
Sizes.	1st.   9d.   8d .  4th.

0 X 8 to 10 X 10		311.00	\$10.70	310.20
11 x 14 to 16 x 24				11.50
18 x 22 to 20 x 30	18.50	17.00	15.50	14.00
15 x 36 to 24 x 30	20.50	18.50	16.25	
26 x 23 to 24 x 86	22.00	20.00	17.50	
26 x 36 to 26 x 44	24.00	22,00	18.50	
26 x 46 to 30 x 50	26.00	24.00	20.50	
80 x 52 to 80 x 54	27.00	25.00	21.50	
80 x 56 to 84 x 54	99.00	27.00	24.00	
34 x 58 to 34 x 60	81.00	29,00	26.00	1
36 x 60 to 40 x 60	35.00	81.00	29.00	1
Dot	ıble.			
Sizes.	184.	2d.	3d.	4th.
6 x 8 to 10 x 15	\$17.50	815.00	\$14.00	\$13.00
11 x 14 to 16 x 24				
18 x 22 to 20 x 3.)			20.00	
15 x 86 to 24 x 80	20,50	24.00	21.00	
26 x 23 to 24 x 35	29,00	26.00	28.00	
26 x 36 to 26 x 44		28.00	24.00	
26 x 46 to 30 x 50		81.00	27.00	

Discount, 60 and 15 to discount 70.

#### PAPER STOCK, &c.

	(Dealers' Selling Prices.	)	
		Cents	PB.
	White Shirt Cuttings, No. 1	7 66	759
,	14 No. 2	536 @	6
ķ	Mill Assorted Whites	534 @	536
)	Unbleached Muslins	016 @	094
ì	City Whites, No. 1	479 38	424
	New Canton Fiannels	-14 60	034
۲	New Seconds, light	324 68	376
	No. 2 Whites.	274 68	3
	Cotton Canvas	172 0	779
ì	Linen Canvas No. 1	479 0	474
	Seconds, City No. 1	18.3	100
ı	Seconds, City No. 2	7 0	734
١	Colors, w cwt	70 66	00
	Manila Rope	336 @	286
ì	" Tarred	236 (6)	294
١	Gunny Hagging No. 1	194 Ga	2
	No. 2	136 @	184
	Kentucky Bazging	. 4 @	***
	Burlap Bagging No. 1	214 (8	256
	Tar Shakings	196 00	3
	Hemp Twine Stock	454 38	456
	Hard White Shavings, No. 1	***	3%
	Soft White Shavings, No. 1	3% @	356
	White Shavings, No. 2, Soft	@	3
	Ledger and Writing	276 68	3
J	Solid Stock	3.0	33
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ò	" Ultramarine	B. 200
0	Brown Spanish	23.60
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# HERMANN BOKER



PICKS, MATTOCKS, CRUB HOES, HAMMERS.



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GEO. WOSTENHOLM & SON'S, WADE & BUTCHER'S Pocket Cutlery and Razors. JNO. WILSON'S Butcher Knives, Steels and Shoe Knives.

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THE MOST POPULAR COAL VASES MADE.

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Elizabethport Steam Cordage Co.. MANUFACTURERS OF MANILA, SISAL AND TARPED

CORDAGE OF ALL KINDS. BINDER TWINE A SPECIALTY.

46 South Street, New York.

KS

their property situated in Mahoning County, Ohio, for the sum of \$500,000; that underpaid mortgage bonds of \$500 each had been issued to the extent of \$200,000 and deosited with said accommodation indorsers to indemnify them for any liability that might accrue to them as such accommodation indorsers, and further alleging that the judgments obtained in the Court of Common Pleas at Youngstown, upon the confession of Henry Crawford, as attorney in fact of Herbert C. Ayer, president of Brown, Bonnell & Co., were made without the knowledge or authority of any of the directors, officers or stockholders of Brown, Bonnell & Co., and without any authority whatever; that and Merbert C. Ayer had not acted as president of said company for more than two years preceding the execution of the power of attorney to said Crawford; that he had not been recognized as president of the company, and, therefore, had no authority what ever to confer any such authority of power upon any attorney to confess judgment, as done, and that, therefore, such judgment was null and void.

Under these pleadings and these circumstances the case came on for hearing, upon a motion of certain creditors to discontinue this proceeding, to discharge Fayette Brown as receiver and to turn over the property to the defendant. The courtasked that all bills and motions in the case be presented, and, these being ready, Judge Baxter ordered to be struck from the files the motion to dismiss the proceedings and certain pleas to jurisdiction, because made by defendants, against whom a pro confesso had been entered; but he allowed them to argue the motion to dismiss the receiver, and in that to raise the question of jurisdiction, in so far as the effect of the payment of the Negaunee judgment was concerned. Henry Crawford, of Chicago, in opening the argument in support of the motion to dismiss the receiver, took the position that the United States courts have no jurisdiction to appoint a re-ceiver of a corporation, except such as exceiver of a corporation, except such as ex-isted in the chancery courts, unaided by State statutes, and that that jurisdiction never authorized the appointment of a re-ceiver upon the sole ground that the corporation was insolvent, and that in this bill. upon which the receiver was appointed, there was no allegation which showed that the plaintiffs had not an adequate remedy at law by collecting their debts by ordinary process and execution. Mr. Crawford's argument was a lengthy one, and he cited nu-

merous authorities in support of his position.
Judge R. P. Ranney, of Cleveland, argued against the motion, speaking for more than an hour. He claimed that, if necessary, though the State statute permitted a portion of the creditors to get an advantage over others, a court of equity would, to preserve the equitable lieu of a creditor and compel an equal distribution between the cess quit trust, appoint a receiver and take the propor preserving it and securing equality of distribution. Mr. Crawford replied at some length, after which Judge Baxter decided the case as follows:

"We do not recognize any case that has been exactly similar to this. In this application it is set forth that the property is threatened with a great many suits, and bringing the property to sale in detail would result in a great loss. In these cases cited it would appear that the fund is in trust for all creditors alike and involves the vital question of interposition before the charter expires. The arguments of the counsel who makes this motion restrict my newers, so that makes this motion restrict my powers, so that it almost makes my head swim, and I feel as though I had no power at all. To say that the court has no power to step in and save this property when the officers had practically ed it would seem rather strange. If that did not give the court jurisdiction, an amended bill is filed to the effect that an execution was issued and returned nulla bona, thereby confessing the necessity of the luminous fishing bait court's stepping in and saving a waste of at least \$500,000, as shown. These creditors are under a mutual obligation not to take advantage of each other, but by sharp practice some of the creditors have taken judgment in other courts. It is manifest equity for all the creditors to share alike. If there is not the creditors to share alike. a case like this showing the jurisdiction of this court, we will make one. Those judg-ment creditors, no doubt, did right in taking the steps they did, although they did not at-tempt to take possession of the property; but if they should proceed to disturb the property on the strength of their judgment obtained in the courts below, we would enjoin them, as we think we have the right to do. It may be that it will become necessary to file an amended bill and serve upon the parties. The original complainant upon the parties. The original complainant may withdraw from the case and his place be taken by others; but this will not dismiss the case. We hope that the case may be hurried along as rapidly as possible, and in the distribution of funds we shall endeavor to see that all the creditors are fairly, honestly and equitably dealt with. It follows, therefore, that the motion to dismiss is overruled. Other questions as to the merits of the case and minor details follow-

Industrial Education.-At the thir teenth annual meeting of the Social Science Association, recently held in Philadelphia, a paper treating of the "Progress of Indus-trial Education" was read by Philip C. Garrett, in which he declares that the public school system must be reformed and adapted to the education of the masses—the mechanical and industrial classes. He said our ical and industrial classes. He said our destinies depend upon this, and education must be made compulsory for the preservation of the State. The speaker showed the falsity of the impression that this country is which has been applied to other uses hereto-

future time

of the court failed. Afterward Mr. Daniel E.lls, Mr. William H. "Harris, Charles A. Ottis, the Commercial National Bank of Ottis, the Commercial National Balla of Cleveland, John Hay and Samuel Mather, as executors of the estate of Amasa Stone, necessary revolution of system from the old-field an answer and cross-bill in the same fashioned classical methods, and he recounted suit, alleging that they, with the exception of said Commercial National Bank of Cleveland, had become accommodation indersers for Brown, Bonnell & Co. for about \$40,000 apiece, and that to secure them as such accommodation indorsers Brown, Bonnell & Co. had executed a mortgage upon all training. He also spoke of the character of the apprenticeship schools in France, where of large factories establishing training schools for their employees.

#### Luminous Hardware.

A somewhat novel departure from old ethods and styles is the manufacture of luminous hardware, as undertaken by the Enterprise Manufacturing Company, of Akron, Ohio, some of whose goods are illustrated in the accompany cuts. Their goods this character now comprise luminous



fishing bait, harness and carriage trimmings, letters and figures, door plates, house numbers, match safes, paper weights, &c.

About six months ago Mr. E. F. Pflueger, who is now the manager and treasurer of the company, began experimenting in luminous goods in the way of a small headlight to be worn by a horse to prevent collisions at night. The first article made consisted of a piece of tin cut about 3 inches square, with slots from each corner toward the center, somewhat after the style of the Maltese cross. The luminous compound was put on the face of the metal, and by means of small fasteners the completed light was fastened to the bridle. In this shape the invention was in a somewhat crude form, and Mr. Pflueger soon saw there was a wide field for



improvement before him. He at once began a series of experiments, which resulted in the line of goods now offered to the trade. Instead of tin, glass disks are now used, which, it is said, give more brilliancy to the luminous compound, and also protect the luminous matter, which is put on the lower side of the glass, and is covered on the back with a metal plate, leaving the face of the glass perfectly clean. One of the principal articles manufactured is horse jewelry, consisting of headlights and rosettes which are made on convex crystals, with brass mountings, in nickel, silver or gold platings, of which an illustration is given herewith.

king novelties deserves men mention, and the manufacturers call special attention



to their crystal glass minnow, which is coated on the inside partly in silver and partly with the luminous compound. The Dexter trolling spoon and minnow combined, of which we have seen a sample, is an ingenious and attractive bait. One side is silver-plated and the other side illuminated. With reference to it the manufacturers men-tion that it is a well-known fact that game fish lie at rest in the daytime and feed after rruled. Other questions as to the of the case and minor details following as the street in the daytime and feed after night, making it a difficult matter to catch them, while their luminous bait, they say, is sure to attract, and they claim that for night fishing, cloudy days and deep waters it is interested in the warrior near of a seam of coal in the warrior near of a seam of coal in the warrior near of a seam of coal in the warrior near of the cannot coal in the warrior near of the case and minor details following the same of the case and minor details following the same of the case and of coal in the warrior near of the case and minor details following the same of coal in the warrior near of a seam of coal in the warrior near of a seam of coal in the warrior near of the case and minor details following the same of the case and the c

tis just the thing and sure to kill.

The same manufacturers, we may add, make also a line of rosettes without luminous properties. They also make half a dozen styles of luminous match safes, special attention to the utility of their door

fore. It is claimed that the price of this line of goods is but little, if at all, greater than for the ordinary unilluminated articles.

#### Exhibits for Korea.

New York, December 22, 1883.

To the Editor of The Iron Age.—Dear Str:
—H. E. Min Yong Ik, the Korean Minister, before his departure for Korea by the United States steamship Trenton, via the Suez Canal, requested me to take steps to make known to the business community that an exhibition or museum at Seoul, the capital of Korea, was being formed, and it was the desire of the Tah Chosun Government that exhibits of the manufactures of the United States, such as hardware and hollow-ware of various designs, agricultural and mining implements, machinery, &c.—in fact, all such goods as are adapted to the requirements of this Oriental nation of 12,000,000 of people, just now entering into the family of nations, under our late treaty—should be sent out as early as possible, in time for the spring opening of this exhibition, and for the agricultural fair, which it is His Excellency's inmachinery, &c .- in fact, all such goods as cultural fair, which it is His Excellency's in tention to establish on his arrival at Seoul, in early April next. I would also mention that the Minister is a member of the Tah Chosun Government, President of the Agricultural Department, and takes a very deep interest in the future success of this exhibi-tion and fair. He is, I know, warmly sec-onded by our own Minister, Gen. Lucius H.

In order that this good work may be fur ther developed I shall be pleased to give any information desired by intending exhibitors, as to the means of conveyance for goods from this country to Korea by the different steam routes and as to the forwarding of the same from Shanghai. Yours faithfully,

EVERETT FRAZAR, 73 South Street, New York.

#### The Great Coal Mart of the Future.

The forthcoming report of the Blair Con The forthcoming report of the Blair Committee on the Causes of Strikes and Relations of Capital and Labor, to which reference has already been made in our Washington correspondence in a general way, contains a large amount of significant information particles and the control of the control formation respecting the subject of coal in the South, which, when given to the coun-try, will doubtless cause the coal operators of Pennsylvania, Maryland and West Virgia to open their eyes. Among the witnesses examined was A. C. Danner, president of the National Bank of Mobile, who is one of the largest coal operators in Alabama. He said that the time was near at hand when the coal fields of Alabama would furnish all Central America with coal. At present Alabama is not producing more coal than she

can use. Fifteen years ago the price of coal at Mobile was \$1.4 per ton, and to-day it sells at \$4. On account of the low price of coal, United States vessels which a few cears ago were furnished with coal years ago were furnished with coal from the North, now get their supply from Mobile. The growth of the coal trade of Mobile has been rapid and permanent. From 1300 tons of Alabama coal received in 1879, the supply increased to upward of 22 coo tons in 1882. The ward of 22,000 tons in 1882. The chief coal deposits, the testimony shows, are confined to Alabama, and that within the limits of the State there are seven varieties. There is no coal of any account in Texas, and but a small supply in Georgia, Arkansas and the Indian Territory, and none in Mississippi or Louisiana. As giving an ap-proximate idea of the richness of

neasures of Alabama, it was stated by Mr. Danner that he owned an interest in a coal mine near Birmingham, which, it had been carefully estimated, would yield 2000 tons a day for 2000 years. He thought, with the improvement of the rivers emptying into Mobile Bay, that Mobile would become the greatest coal market in the world.

The testimony of General Burk, Collector of the port of Mobile, also presents an interesting résumé of the coal industry and its development in Alabama. In 1880 a Government vessel engaged in the Coast Survey service paid \$8 per ton. Upon a report of the collector the Government entered into a contract for the Government entered into a contract for the supply of revenue cutters with Alabama coal at \$5 per ton. The supply prior to that time had been furnished vessels from Key West, Galveston and New Orleans with coal from Pennsylvania and Latterly, increased production, lower railroad rates and competition had enabled the operators to put coal down at Mobile for \$3.74 per ton. It was believed, with the improvement of the rivers of Alabama, that it could be furnished at Mobile for \$2 per ton. It was shown that Mobile was the only port in America to which coal could be transported by river tide. Reference was made to a mine from which coal could be taken by a tram car and dumped on flats on the Warrior River and floated to Mobile at certain seasons of the year. increased facilities the price of coal would be still further reduced. Mention was made of an offer of 1000 tons of coal on the Warrior River at \$1 per ton. The distance from Mobile to the Alabama coal fields is about 250 miles, which lies above present naviga-tion, but with a small outlay the present obstructions to navigation could be removed so that flats could descend to tidewater at all seasons of the year. Mention was made of a seam of coal in the Warrior field 6 miles

effect that Alabama coal is equal to any in the United States for steaming purposes, and it was claimed that the Warrior coal fields would become the great steam coal basin for the central portions of the Western

ama Canal would be largely carried by steam the State in Congress, with the request "to use all honorable means to secure the enactor Alabama coal. Steam vessels from England and the Continental countries of Europe but the Governor of the State has forwarded would take coal on their voyages rather than load themselves down with a full supply at the expense of cargo. It was stated that geographical location and coal supply would soon make Mobile the coal station not only of the Gulf, but of the Pacific coast of South America and the Pacific Islands. The present supply of these points comes from the coal fields of England and Australia. It was claimed that Alabama coal could be landed at San Francisco at prices which would meet in favorable competition with the present supply from points nearer home. The committee were strongly impressed with the force of these statements thus submitted, and did not hesitate to express the opinion that the coal supply of Alabama would exert a powerful influence upon the commercial interests of the United States in the Gulf of Mexico and the Pacific Ocean, besides prov-ing of incalculable benefit to industrial derelopment.

#### WASHINGTON NOTES.

(From Our Own Correspondent.) Washington, D. C., Dec. 26, 1883. OPPOSITION TO HURD.

The announcement that Mr. Hurd would probably be placed on the Committee on Ways and Means was not relished by his Democratic colleagues of the Ohio delegation of Congress. It appears that several of these gentlemen protested against his selection on the ground that he was the only member of the delegation who advocated ultra free trade views, and that his position on that subject was in antagonism to the "Ohio platform." It was claimed that the revenue plank of that document represented the views of the Democratic party in five States, as it had been indersed by them, and therefore Mr. Hurd's appointment to the Ways and Means would be a direct slap at the protection wing of the party. These gentlemen also represented that his appointment would further injuriously affect the interests of the Democratic party, not only in Ohio, but also in other Western States. This is the first indication that all is not serene in the ranks of the majority in the

NEVADA WANTS FAIR PLAY ON THE TARIFF. In connection with the movement in Congress in support of the free and unlimited support of the coinage of silver, the mining and other dependent industries of Nevada have developed a decided public sentiment in favor of protective legislation. In February of the present year a memorial was adopted asking relief from the unjust legislation in force "against the industry and interest of the people of the State of Nevada in the regulation of the National coinage, and in other ways. In the formation of the Federal Union it was decreed to be for the mutual benefit of every State and Territory under its control, and the protection of all the in-dustries and interests of every section alike; and that there has been a wide departure from these just principles of the fathers, let certain facts be stated. By an unequal adjustment of the Federal tariff our people are made to pay on all the supplies they consume in the production and manufacture of silver an outrageous tribute to the protected industries of the Atlantic States, without any compensating benefit from Federal legislation on what they produce.

THE SAME PRIVILEGES AS PENNSYLVANIA DEMANDED.

"On the contrary, they are wronged by the Government out of more than one-eighth part of their silver, in its purchase for coinage at the mints; and coinage, being an ex-clusive monopoly of the Government, is managed in an unjust and arbitrary manner, oining gold bullion upon demand and refus-ng the same privilege to the producers of silver bullion. London quotations are made to control and regulate the price of Ameri-can produced silver, Nevada's chief induswhile the chief industry of Pennsylvania, the production of iron and steel (as an instance of Federal partiality and favoritism), is sustained by a protective tariff; there-

fore, "Be it resolved, That we hereby invoke sional action against such unparaleled discrimination; and we instruct our Senators and request our Representatives in Congress to demand, in the name of the people of this State, the unlimited coinage of silver bullion produced in the United States of America upon the same terms and conditions that are accorded to the producers of gold bullion.'

PROTECTION FOR SILVER.

In application of the principles enunciated in this memorial, a few days later the Legislature of Nevada, recognizing the prospective competition of foreign silver in event of the passage of the bill authorizing free coinage, adopted a joint memorial and free coinage, adopted a joint memorial and resolution "Relative to Congress placing a protective tariff on silver bullion." The nemorial, in stating the causes which led to this action, says :

Whereas, the Congress of the United States has placed a high protective tariff upon the foreign importation of iron, copper, and other valuable metals, thereby protecting home industries and home products against foreign competition; and

Whereas, Mining for silver is the leading industry and paramount interest in nearly all of the great States and Territories, which embrace within their boundaries all that vast region extending from the eastern spurs of the Rocky Mountains to the Pacific coast, therein affording employment to thousands of the most worthy and enterprising of our fellow-citizens: Therefore, your memorialists do most respectfully urge Congress to enact such laws as are necessary dozen styles of luminous match safes, which can easily be distinguished across the darkest room. The manufacturers call special attention to the utility of their door plates and numbers, which are made on the that Alabama would deliver coal at Aspin-wall for the treasury to adjust the tariff to exactly wall far chapter than England. It was shown correspond with the discount on silver, that the softest steam coal from that part of in the event of the free coinage of the same

copies of the joint memorial to the Governor copies of the joint memorial to the Governor of each State and Territory engaged in mining and producing silver bullion, with the request that the same be presented to the respective Legislatures for joint appeals to Congress for the relief asked for. These memorials and joint resolutions have been presented to Congress by Mr. Fair, of the Senate, and Mr. Cassidy, of the House of Representatives, and referred to the Com-Representatives, and referred to the Committees on Finance and Ways and Means. They illustrate the important fact that the national interests of a country after all shape public sentiment.

A secret meeting of the Executive Committee of the Highland Junction Railroad and Storm King Bridge Company has been held, at which arrangements were made to commence work on the bridge across the Hudson, near Cornwall, at an early day. A contract is said to have been made with Clark, Reeves & Co. to build the bridge at a sum considerably less than \$4,000,000. a sum considerably less than \$4,000,000. A corps of engineers are making a survey for the proposed lines of railroads that will lead to the bridge. By this link of road the Erie, West Shore, Ontario and Western and Lehigh and Hudson will be connected with the New York and New England Railroad, making an all-rail route direct to Boston for both Lehigh and Sahuyikili coal. both Lebigh and Schuylkill coal.

Notice is given of the formation of a cor-coration called the McCosh Iron and Steel Company, with its principal place of business at Burlington, Iowa, or in that immediate vicinity, of which Thompson McCosh is president and John A. McCosh, secretary and treasurer. The business to be transacted is that of manufacturing and dealing in ion and stell and it all neticles in which in iron and steel, and in all articles in which iron or steel is used as a part. The capital stock is \$200,000, but the corporation may begin business when \$25,000 are subscribed.

The Joliet (Ill.) Steel Mills closed on Saturday last, the 15th inst. for the purpose of making necessary alterations before beginning the manufacture of rails by the new direct process. Subsequent to these alterations, which are likely to occupy two or three months, the mills will be opened or remain closed, according to the condition of the market. They are not now desirous of accepting orders for future delivery at ent prices.

The Adams & Westlake Manufacturiug Company, of Chicago, Ill., are erecting a new factory 74 x 190 feet, 6 stories high, at 110 to 114 Ontario street, which will be fitted up in the most complete manuer for the manufacture of their numerous novelties. The factory which they now occupy will be enlarged by an addition of 40 x 75 feet, which will be very largely used for storage and salesroom.

The National Barb Fence Company, Chicago, Ill., was incorporated on the 14th inst.; capital, \$2,000,000. It is announced that the company intend erecting works in the vicinity of Chicago, to begin the manufacture of barb wire some time during the early part of the coming summer.

A new pipe and rolling mill was put in operation recently at Kewanee, Ill. The rolling mill is 75 x 200 feet, with an \$\( \Lor{1} \) 60 x 65 feet. The pipe mill is 60 x 200 feet, with an L 40 x 175 feet. In addition to these there is a building covering the gas producers, 40 x 150, and another for the boilers, 40 x 110

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#### Special Notices.

#### RECENT BOOKS.

Nystrom.—Pocket-Book of Mechanics and Engineering. By John W. Nystrom, C. E. 17th edition, revised and greatly enlarged with original matter. 511 pages, fully illustrated, 16mo, pocket-book form, 1883 . . . . . \$3.50

The present edition of this standard work has been thoroughly revised by the author, whose high reputation as an engineer and as whose high reputation as an engineer and as an earnest worker in the advancement of mechanical science is sufficient guarantee of the comprehensiveness and accuracy of the book. It treats of the properties of air, heat and steam, the expansion of water, strength of materials, dynamics, accustics, optics, assaying and chemistry. Tables of the circumference and the area of circles and the logarithms of numbers are included. and the logarithms of numbers are included. Also the United States Standard and the Metric System of weights and measures and tables of the money and coins of the different countries of the world are given. A knowledge of algebra is not necessary for the use of the formulæ.

Adams, H.-Notes in Mechanical Engineering. \$1. Blakesley, T. H.-Electricity at the Board of

Blakesley, T. H.—Parther and Dynamo-Electric Fahie, J. A.—Magneto and Dynamo-Electric Machines. 31 illustrations. 8vo, paper. 4oc. Fiske, Lieut. B. A.—Electricity in Theory and Practice; or, the Elements of Electrical Engineer.

Practice; or, the Elements of Electrical Engineering, \$2.50.
Hodgson, F. T.—Handsaws, their use, care and abuse; how to seelect and how to file them. \$1.
Lockwood, T. D.—Electrical Measurements and the Galvanometer; its construction and uses. \$1.50
Vodges, F. W.—The Architect's and Builder's Pocket Companion and Price-Book. New, revised and enlarged edition, 32mo, cloth, \$1.50, Pocket-book form. \$2.
Wahl, Wm. H.—Galvanoplastic Manipulations. A practical guide for the Gold and Silver Electroplater and Galvanoplastic Operator. \$7.50.

Internal Revenue Laws in Force since March, 1879; Reprint, with Subsequent Laws. 8vo, paper. MacCord. Prof. C. W.—Kinematics, or Mechanical Movements. \$5.

Weisbach, Dr. Julius.—The Mechanics of the Machinery of Transmission. Revised by Prof. Gustav Herrmann; translated by Prof. J. I. Klein. Vol. III., Part I., Section I., §5.

Hoffer, R.—Practical Treatise on Caoutchouc and Gutta Percha. Translated by W. T. Brannt. \$2.50. Maw, Wm. H.—Recent Practice in Marine Engineering. Parts I to VII, inclusive. Each, \$1. Electricity. Robt. M. Ferguson. Revised edition, 1200, cloth, \$1.50.

Materials of Engineering. Part II, Iron and Steel. R. H. Thurston. Svo, cloth, \$5. History and Uses of Limestone and Marbles. S. M. Burnham. Svo, cloth, \$6.

Recent Wonders in Electricity, Electric Lighting, Magnetism, Telegraphing, &c. 8vo, paper, \$2. Bury, W.—The Resistance and the Proportions, of Screw Propellers. \$21.

For Sale by

#### DAVID WILLIAMS, 83 Reade St., New York.

#### Malleable Iron.

A large Malleable Iron Works in the West, now doing a jobbing business in Malleable and Gray Iron, is desirous of connecting itself with a party who could consume, with proper facility, from three to five hundred tons of Castings per year in some specialty or specialties that would pay a fair profit as finished goods to parties who desire to extend their business by procuring increased facilities. Cheap Iron, Coal, Wood, Freights, &c. This is a rare chance. There is sufficient shop capacity to fully complete anything in the Agricultural Implement, Saddiery or Wagon Hardware

"MALLEABLE IRON," Address Office of The Iron Age, 83 Reade st., New York.

#### Wanted.

First-class Foreman for Foundry Shop; must be an Ar man, thoroughly experienced in every branch of the trade. One who understands the Plow Casting business preferred.

"CASTING," Office of The Iron Age, 83 Reade st., New York.

### Wanted.

A situation to travel by a young ma" aged 23 years; has had five years' experience in the Wholesale and Retail Hardware Trade; or a position with some Wholesale House, with intention to travel. Any one in need of a young man, willing and able, will find same by addressing "NEWARK,"

Office of The Iron Age, 83 Reade Street, New York References furnished.

#### Wanted.

An EXPERIENCED HARDWARE SALESMAN for Southern States. Must be thoroughly acquainted with THE TRADE AND BUSINESS.

> SAM'L G. B. COOK & CO., Baltimore, Md.

#### WANTED.

A situation by a Salesman, who has been on the Road selling Hardware for 10 years. Can give the best of references. Address. "J. P. T." Office of The Iron Age, 83 Reade St., New York. FOR SALE.—To party with \$20,000 to \$25,000 cash caoital, a good paying Hardward Business in Colorado. Good reason given for

"BOX 2634," Denver, Col.

### WANTED,

A situation by a young man, 28 years of age; has been in the Cutlery Business for 10 years. Best of references. Address. "CUTLERY 188." Office of The Iron Age, 83 Reade Street, New York.

### Salesman,

Commanding large trade in the States of Ohio, New York and Fennsylvania, would like to take line of cutlery, Locks, &c.; also Hardware Specialties salary or Commission. — C. X. C., BOX 76, Office of The Irox Age. 3 Reade Street, New York.

WANTED.—A position by a thorough Hardware man of 20 years' experience. Has traveled West for the past 13 years selling the Jobbing trade. Best of reference.

Address
P. O. Box 3018, New York City.

#### Special Notices.

ENGINES AND BOILERS. 20-In.

20-In.

12-In.

17-In.

10-In.

10-In. P. Horizontal Tubular Botler. by 40 in. Upright Botler, 22 H.-P.

7 ft. by 30 in.
5 ft. by 42 in.
30 in. Upright Drill. Prentice.
10 in. Upright Drill. Prentice.
New Haven Mfg. Co.
2 ft. bed Fitchburg Lathe.
12 in. Crank Planer. New York Steam Eng. Co.
15 in. by 4½ ft. bed Fitchburg Lathe.
16 in. by 4½ ft. bed Fitchburg Lathe.
16 Heavy Combined Punch and Shears. Wm. Sellers
17 ft. bed Fitchburg Lathe.
18 Heavy Combined Punch and Shears. Wm. Sellers
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by 30 in.
by 30 in.
by 32 in.
by 32 if. Plain Cylinder Boiler.
Upright Drill. Prentice.
New Haven Mfg. Co.

An old-established STORE and House Furnishing Business, in one of the most growing cities of Northern Indiana; population, about 15,000, Stock on hand in good shape, perhaps \$6000; can be reduced, Reasons for selling, the ill health of Proprietor.

PERRY & CO., No. 15 Lake Street, Chicago, Ill.

#### For Sale.

Stock of Hardware, Agricultural Implements, Stoves, Tinware and Harness Shop. One of the best locations in the State of Pennsylvania. Busi-ness in a flourishing condition. Stock clean, and value from \$12,000 to \$15,000. Terms easy. Address "BOX 166,"

Meyersdale, Pa.

### Notice.

TRADE-MARK "WASHOE."

This is to notify those interested in the question of the ownership of the Trade-Mark "Washoe." that a suit has been for some time pending between Washoe Mfg. Co, and H. H. Trener, before the Court of Interferences of the Patent Office in Washington, and that on August 25, 183, the Examiner of Patents decided that the Trade-Mark "Washoe" belongs to the Washoe Mfg. Co., and that the claim of H. H. Trener to the same was null and void. This decision was affirmed by the Commissioner of Patents on November 1, 1883. Notice is now hereby given to all parties, persons or companies manufacturing, buying or selling Pick-Axes or other Tools branded "Washoe" without legal authority from the undersigned, owner and proprietor of the said Trade-Mark "Washoe," that they will be held legally responsible therefor. TRADE-MARK "WASHOE."

WASHOE MFG. CO. JOHN J. ANDERSON, Pres. and Treas. NEWARK, Nov. 9, 1883.

#### BARGAINS.

#### Engines, Boilers, Machine Tools.

700-lb. Ferris & Miles Steam Hammer.

Send for List.

Wanted,-12-ft. Boring Mill.

72-in. x 72-in. x 25-ft, Planer

### LOVEGROVE & CO.,

152 N. Third Street, Phila., Pa.

#### LOCATION WANTED.

#### REMOVAL OF BUSINESS.

We are looking for the most desirable location for manufacture of Agricultural Implements and Machinery Specialties. Must have unequaled facilities for securing raw materials, Iron, Coal and Lumber cheap, and low freights, East, West and South, on manufactured goods.

Desirable propositions from individuals or business committees, giving all particulars, advantages and special inducements offered to secure a long-established, prosperous and growing manufactory will be considered.

Address, E. W. ROSS & CO., Fulton, N. Y.

#### Wire Nails Wanted.

A party representing one of the largest Nail Mills in the West, visiting the large trade as far west as Denver, would like, in addition, to sell Wire Nails either on a salary or commission. Best of references given. WIRE NAILS,

Office of The Iron Age, 13 W. 3d St., Cincinnati, O.

#### Estimates Furnished

and contracts taken for power shears, power punches, steam hammers, steam riveters, plate planers, accumulators cranes, hydraulic presses, &c., upon the most favoraple terms to consumers. Work guaranteed.

B. GRAVES LOUDEN,

22d St. and Washington Ave., Philadelphia.

### Metal Exchange Memberships

WM. WILLIS MERRILL. ne Street, Room 69.

EXCHANGE MEMBERSHIPS.

#### Wanted.

(Old)

IRON AND STEEL ROPE, and Iron and Steel of any kind.

MATTHEW GILL, JR., & CO. 1240 North Ninth Stree (below Thompson Street), Philadelphia,

#### Salesman.

#### Special Notices.

NEW AND SECOND-HAND

MACHINERY. Engine Lathe, 20 in. swing, 10 ft. bed.

Engine Lathe, 20 in. swing, 12 ft. bed.

Pew.

Engine Lathe, 20 in. swing, 5 ft. bed.

Engine Lathe, 20 in. swing, 6 ft. bed.

Engine Lathe, 10 in. swing, 17 ft. bed.

New.

Engine Lathe, 10 in. swing, 17 ft. bed.

New.

Engine Lathe, 18 in. swing, 17 ft. bed.

Engine Lathe, 19 in. swing, 5 ft. bed.

Engine Lathe, 11 in. swing, 5 ft. bed.

New.

Engine Lathe, 13 in. swing, 5 ft. bed.

New.

Engine Lathe, 13 in. swing, 5 ft. bed.

New.

Hand Lathe, 13 in. swing, 5 ft. bed.

New.

Hand Lathe, 10 in. swing, 5 ft. bed.

New.

Hand Lathe, 10 in. swing, 4 ft. bed.

Hand Lathe, 10 in. swing, 3 ft. bed.

Hand Lathe, 10 in. swing, 3 ft. bed.

How.

If the list does not contain what you

#### J. M. BADGER, 49 DEY STREET, New York City. MANUFACTURERS' CATALOGUES

#### RESPECTFULLY SOLICITED F. UPTON & CO.,

### COMMISSION MERCHANTS

#### SAO PAULO, BRAZIL. A RARE OPPORTUNITY

for a man who can command \$3000 or \$4000, in a retail Hardware, Stove and Tinware business. Stock is being turned from three to four times per year; small competition. The town is situated in "Genesee Valley." N. Y.; inhabitants, about 3000. Splendid Raiiroad facilities. The business reputation of this town is unquestionable. Must quit business on account of health.

Address. "A. E. R.,"
Office of The Iron Age, \$3 Reade St., New York.

#### Wanted.

Oily Wrought Iron Turnings and Cast Iron Name quantity, point of delivery and lowest JOS. J. LIPPINCOTT & CO.,

#### Wanted.

131 So. Fourth St., Philadelphia, Pa.

#### HEAVY CASTINGS AND ROLLS.

Wanted to buy Old Heavy Castings and Rolls of all kinds. Address MATTHEW GILL, JR., & CO.,

1240 N. 9th St. (below Thompson St.) Philadelphia.

#### Wanted.

A CUTLERY SALESMAN of experience, to Office of The Iron Age, \$3 Reade St., New York. travel to the Jobbing Trade, West.

Address "MANUFACTURER." P. O. Box 1013, New York City.

### Wanted.

OLD MALLEABLE SCRAP. State lowest price, point of delivery and quan-

Dealers in Scrap Iron, 222 and 224 So. Third Street, Philadelphia, Pa

Hardware.

An excellent opportunity to engage in the whole-sale trade for one who can command \$25,000, or would like to join hands with a good live concern in the South or Northwest, and put in as capital the stock, which is in excellent condition and well assorted. CITUATION WANTED by a first-class Salesman, known and traveled all over the United States and Canadas, in the Hardware, House Furnishing and Metal line; is also a thorough Book keeper and Accountant. Address "HARDWARE."

P. O. Box 1271, New York.

A gentleman of large experience, commanding would like to join hands with a good live concern in the South or Northwest, and put in as capital the stock, which is in excellent condition and well assorted. Address "HARDWARE."

Office of The Iron Age, 33 Reade st., New York.

#### Special Notices.

### New & Second-Hand Machinery.

SECOND-HAND. SECOND-HAND.

Engine Lathe, 16 in. x 6 ft.
each, Engine Lathes, 18 in. x 6 and 8 ft.
Planer, 24 x 24 x 3 and 6 ft.
25 x 30 x 8 ft.
26 in. x 50 in. x 50 in. x 17 ft.
10-in. Shaper.
2-Spindle Edging Machine.
Bolt Cutter, to take sizes to 134 inch. Merriman.
Lincoin Pattern No. 2 Miliers.
All kinds Machinists Tools and Supplies.

NEW YORK AGENCY OF

THE TANITE CO., GRANT & BOGERT MACHINE TOOL WORKS, and for the NEW POLISHED SHAFTING.

#### H. PRENTISS & CO., 42 Dey St., N.Y. For Sale.

ENGINES AND BOILERS. Two Wright Automatic Cut-off Engines, 22 X 42 and 22 % 26 Two Dexter Automatic, 40 and 150 H. P. One 16 x 36 Slide-Valve Engine.

One 20 x 36 One 10 X 24 One Corliss Condensing Beam Engine, 500 H. P. Two Horizontal Tubular Boilers, 4 ft. x 16 ft. One Vertical Tubular Botler, 9 H. P.

All the above guaranteed in good working NEWELL UNIVERSAL MILL CO.,

#### 12 Barclay Street, New York. For Sale.

The Industrial Works of Shamokin, owned and successfully carried on for a number of years by the late Wm. Brown, deceased, consisting of Foundry and Machine Shop, and a large steck of Patterns regarded as part of the property. Boiler Shop, Blacksmith Shop and Factory for the manufacture of heavy coal screens. Well located in the borough of Shamokin, Pa., with the best facilities for shipping by rail, and surrounded by a district contributing all the work that a shop of that kind can possibly turn out. Easy terms of payment are offered to suit a purchaser of limited capital. For list of Tools and further particulars apply to WM. McILVAIN & SONS.

Manufacturers of Boiler Plate and Tank Iron, Reading, Pa.

### FOR SALE.

Root Blowers, Nos. ½, 1, 2, 3 and 7; Baker do. Nos. 1 and 4½; Sturtevant, Nos. 0, 6 and 7; do, Exhausters, Nos. 2, 4, 5, 33 and 39; Clark Blower (Foundry); McKenied do., No. 4; Baxter Engines, 6 and 10 H.-P.; Vertical do., 2½ x 5; Horisontal do., 3 x 6 and 8 x so; Hoisting Engines, 6 x 12 and 9 x 13; Hydraulic Press, 300 tons; One Pulley, 60 x 12. All kinds of machinery bought and sold for parties out of town. C. R. BIGELOW, M. E., 18 New Church Street, New York City.

### To Brass Foundries. To Brass Manufacturers.

Our new foot press, for cutting off GATES from brass castings by FOOT power, is now ready. Weight, stolibs. Frice complete, \$50, net. A boy can operate it easily. We warrant them to give the most perfect estisfaction. FERRLESS FUNCH AND SHEAR CO... W. Dep Street, ewe York

### E. BISSELL & CO., Wholesale Hardware Auctioneers.

Sales held weekly for the trade. Consignments solicited. We refer to the leading manufacturers and importers.

### Wanted.

A Partner with \$5000 to \$10,000 in a Foundry and Machine Business, established in 1824. For particulars, inquire of I. H. COLLER,

Poughkeepsie, N. Y.

### Wanted.

By an A: Bookkeeper, who has had eight years experience in the offices of manufactories and five years in the office of a commission house, a position as Bookkeeper or assistant. First-class references furnished. "J. M. R.,"

Address

#### Wanted.

A first-class Steel Plate Roller, accustomed to 3-high train, can have permanent employment, at highest wages, by applying promptly, stating references, to "STEEL FLATE ROLLER." Office of The Iron Age, 220 S. 4th St., Philadelphia.

#### Wanted.

in January, position as Selesman in an Iron or Iron Commission House. Have had 10 years' experience, and can give satisfactory references. Address "H. H. H."."

Office of The Iron Age, 13 W. 3d st., Cincinnati, O.

SPECIAL NOTICE TO OWNERS OF CHARCOAL FURNACES.—A gentleman of large experience in atacking and overseeing a Charcoal Furnace would like a situation as General Manager or second, References first-class. The South preferred. rences first-class. The South preferred.
Address
Office of The Iron Age, 83 Reade St., Ma \* York.

SITUATION WANTED—By a Constructing Engineer. Grajuate School of Mines, Columbia College. Thorough Machinist. Three years in shops. Not afraid of climate or place. Hast Furnace Construction a specialty. Address. "KNOX," 6 Pine st., New York, N. Y.

#### Special Notices.

#### LIST OF NEW MACHINERY FOR SALE.

Engine Lathe, 20 ft, bed, 42 in, swing.

r Engine Lathe, 20 ft, bed, 42 in, swing.

18 '36 '36 '
each 14, 16 and 18 ft, bed, 30 in, swing.
19 'each 20 and 22 ft, bed, 23 in, swing.
19 'each 8, 10 and 12 ft, bed, 13 in, swing.
10 'each 8, 10 and 12 ft, bed, 13 in, swing.
11 'each 6 and 8 ft, bed, 16 in, swing.
12 'each 6 and 8 ft, bed, 16 in, swing.
13 'each 6 and 8 ft, bed, 16 in, swing.
14 'each 6 and 8 ft, 20 x 30 in.
15 'each 15 in, swing.
16 'each 16 in, 16 in,

#### The Geo. Place Machinery Company, No. 121 Chambers and 103 Reade Sts., New York.

Valuable Iron Property for Sale. An Iron Property in Central Pennsylvania on the main line of the Pennsylvania Railroad. Large bodies of Hematite and Fossil Ores, well developed. Modern appliances for the preparation of the Ores. Stitusted close to the coal seams of the Clearfield, Broad Top and Alleghany Mountains. Coke from Connellsville can be laid down at \$2.35 per ton. A ton of Fig Iron can be made for about \$13 per ton, exclusive of interest on plant. The property has one Charcoal Furnace and Forge, and an abundant supply of Timber for making Charcoal. Satisfactory reason can be given for selling. Apply, for further particulars, to WM. DORRIS, Huntingdon, Pa.

### For Sale.

The largest stock of New and Second-hand Engines, Boilers, and general Machinery in the West. Send for Catalogue. Hoisting Outfits for Coal Mining and other purposes a specialty,

WARREN SPRINGER. 195 to 219 South Canal St., Chicago.

Lock Box 122, New Haven, Conn.

### For Sale.

Second-hand

#### **DROPS** and LIFTERS. BEECHER & PECK

STEAM PUMPS For Sale.

A large number of Steam Pumps of all makes, and ranging in size from small tank or boiler feeds A large of the United Pipe Lines, Parchasing Agent of the United Pipe Lines, Oil City, Pa.

#### For Sale.

TREBLE AND DOUBLE-GEARED 25-INCH ENGINE LATHES,

from new patterns. GEORGE A. OHL & CO.,

#### East Newark, N. J. For Sale.

300 tons of FLOOR PLATES, 6 ft. x 3 ft. x 1 in., in lots to suit, at \$28 per 2000 lbs., cash, f. o. b. cars Pittsburgh, Pa. Plates smooth and edges straight. Address, H. L. SHAFFER FOUNDRY CO., Pittsburgh, Pa

#### For Sale. MACHINES

For Making Picks, Mattocks, Axes, SOLID STEEL HAMMERS AND SLEDGES, with Adze Eyes or Solid-Punched Eyes.

T. & CO., Box 25, Office of The Iron Age, 83 Reade St., New York.

### Hardware Store for Sale.

The oldest-established Iron and Shelf Hardware Store, situated in a thriving city. Will sell the entire stock. Will also sell or rent the buildings occupied: will turn over my influence and good-will to parties purchasing. Satisfactory reasons given for selling. For further information, address \*\*LUCK BOX 453,3\*\*

Vincennes, Ind.

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#### For Sale.

4, 6, 8, 10, 20, 40, 60 and 100 H.-P. ENGINES. All classes and styles. Portables, BOILERS, PUMPS, &c. The BEST Screw-Cutting ENGINE LATHES, 10 in. 10 36 in. swing. Fine new PLANERS, DRILL PRESSES, SHAPERS, and other Machine Tools, BOLT CUTTERS. NUT TAPPERS. HEADING MACHINE's and PUNCH PRESSES, &c. Quality and pricos unsurpassed.

8. M. YORK, Clevelaud, Ohio.

#### For Sale.

Stock of Hardware, Furniture and Implements combined, in a thriving town in Central Illinois. Gross profits in the last four (4) years over Forty Thousand Dollars (\$4,0,000). The proprietor wishes to engage in the wholesale trade. Will sell all departments together or exparately, Address "ADVERTISER, 77," care Simmons Hardware Co., St. Louis, Mo.

### For Sale.

CAST IBON HOT-BLAST PIPES-THOMAS PATENT.

# 38 Hot-Blast Oven Pipes for Thomas Oven, in first-class order. Price, I cent per lb., cash, at our works. Size, 13 ft. x o inches. A bargain. SHOENBERGER, SPEER & CO... Pittsburgh, Pa.

### 36-Inch Planers For Sale. Extra heavy Tools of excellent design. Power ful, workmanship first-class, all the modern im provements. Beds of any length furnished. Also one or more heads. Prices very low, quality and

one or more nessos, weight considered, B. GRAVES LOUDEN, 2:d st. and Washington ave., Philadelphia.

# Trade Report.

#### BRITISH IRON AND METAL MARKETS.

[Special Cable Dispatch to The Iron Age.]

LONDON, WEDNESDAY, Dec. 26, 1883. Scotch Pig.-There is no change to note, either in the condition of trade or in quotations, which remain as last reported, viz.:

Coltness, along	rside,	Glasgow					۰			٠	٠	.50	1/1
Langloan,	66	4.6										.54	
Gartsherrie,	6.0	0.6								 ٠		. 52	1
Summerlee,	4.6	6.6										. 58	
Carnbroe,	66	4.6										. 52	
Glengarnock,	66 A	rdrossan	١.									.52	11
Eglinton,	66											46	
Dalmellington,	4.6											.48	
Shotts,	66	at Leith	١.							ı		.54	1
Lighterage fo	rom												
ton								-					

ny,

Cleveland Pig.-The market is irregular, with prices same as quoted last week, f.o.b. shipping ports: 

No. 2 " ......38/
No. 3 " .....34/6 @ 35/ Bessemer Pig continues weak, with W. C. Hematites quoted at 45/ @46/ for mixed lots, equal parts, Nos. 1, 2 and 3, f.o.b shipping ports.

Blooms are quiet. Bessemer 7" x 7" are

are quoted £4. 5/ @ £4. 7/6.

Manufactured Iron.—The market is ir-

		£	6.	d.	£		S.	d
Staff. Ord	. Marked Bars		10					
6.6	Medium "	. 6	5	0	@	6	15	-
6.6	Common "	. 6	0	0	@	6	5	-
Hoops, 20	W. G. and over.							
" Co	mmon Best	. 7	0	0	@	7	5	- (
" Me	dium	. 6	5	0	@	6	15	-
11 Co	mmon	. 6	10	0	@			
Sheets, 20	W. G. and under.							
4 Or	dinary Best	. 8	15	0	@	9	5	-
	mmon		0	0	0	8		
Welsh Bar	8				@	5	6	1

the market and prices are a little steadier. We quote ordinary sections £4. 7/6 @ £4. 12/6, f.o.b. shipping ports.

Old Rails.-The market is quiet and steady. Old D. H.'s are quoted £3. 10/@ £3. 12/6, c.i.f. New York.

Scrap.-The market is quiet and quotations are unchanged. We quote Heavy Wrought, £3 @ £3. 2/6, c.i.f. New York. Bessemer Crop Ends, run of the mill, are quoted 60/, f.o.b. shipping ports.

Copper.—The market is not so steady and prices continue to decline. We quote Best Selected, £63. 10/ @ £64, and Chili Bars, £56. 10/ @ £57. 10/.

Tin-Is weaker and lower. We quote Straits, Ingot, spot, £82. 10/ @ £83. 10/,

Tin P	es, £8;		,		-	Wed	quote :
Tin Plates,	10 x 14,	1st	qual.	Charc	oal.	.19/6	@ 21/6
66	4.6	1st	60	Coke			
6.6	6.6	2d	6.6	66		. 15/6	@ 16/
61- 94-						Lone	337.0

quote Ordinary, at shipping ports, £15. 7/6 @ £15. 9/6.

Lead-Is lower. We quote Common English Pig, £11. 17/6 @ £12.

Freights.—Steam from Glasgow to New York, 4/; Liverpool to New York, 4/6 @ 5/; Liverpool to Philadelphia, 5/@ 6/6, and London to New York, 7/6 @ 9/6.

#### TRADE AND FINANCE.

Office of The Iron Age, Wednesday Evening, Dec. 26, 1888. A paucity of facts is the main impediment in attempting a review of the past week. With all the commercial exchanges virtually ers and the generally unremunerative prices now current, all tending to produce quiet-Nevertheless, collections are said by

ason, quite equal in promptitude to those porters indifferent. Freights are dull. of last year, and the outlook for another year is considered good. The head of one of our oldest metal houses coincides in the view that, despite unfavorable indications here and there, uch as occasional stoppages among manufacturers, an enforced reduction of wages and numerous failures, the general condition of business is healthy. The process of liquidation taking place and lower prices, all without panic or disturbance, are construed as evidence of a strong position, and a good trade in the coming year is expected. As a rule, stocks of merchandise are light; nor is there a disposition either to increase liabilities or to press sales, it being "easier to carry goods at the present low valuations," as remarked by one, "than to carry the At the same time it is admitted that the outlook for business is not as cheerful as it was one year ago, due in part to the present somewhat equivocal attitude of Congress on tariff and revenue questions.

The imports of merchandise at this port during the past week were quite heavy, the total being \$10.354,526, or \$1,570,756 in excess of the previous week, but the receipts of dry goods amounted to only \$1,905,711. The imports of coffee were greater than for any week this year, amounting to 192,078 bags, valued at \$2,343,298. Since January 1, the imports aggregate \$454,277,150, com pared with \$487,744,230 for the correspond. While there has been more or less variety. The imports of specie the week amounted to \$145,634, mostly of opinion expressed in the communications where the week amounted to \$145,634, mostly of opinion expressed in the communications where the week amounted to \$145,634, mostly of opinion expressed in the communications where the who will rush into print and encourage for, and why should we not have them f As syndicate buyers as to them, just so long we their competitors to adopt it. Continuing to employ us speaks louder than words. Our cent extra on Tacks if his purchases amount ing period of 1882. The imports of specie

the exports about \$5,000,000.

shall offer for profitable investment. There is still a considerable demand for currency Government bonds closed firm at the fol- turers which he furnished: lowing quotations:

	Bid.	Asked.
U. S. 416s, 1891, registered	11494	
U. S. 4168, 1891, coupon	11494	115
U. S. 4s, 1907, registered	12376	124
U. S. 4s, 1907, coupon	12494	125
U. S. 3 per cents	101	-
U. S. Currency 6s, 1895	128	entert.
U. S. Currency 6s, 1896	180	-
U. S. Currency 6s, 1897	132	-
U. S. Currency 6s, 1898	134	-
U. S. Currency 6s, 1899	135	-

State bonds were lower. Tennessee 6's, old, declined to 38; do. new series, to 38 1/4 and do. new to 3734. Foreign exchange has been reduced to \$4.821/2 @ \$4.851/2, posted rates, and the market is dull.

Bradstreet's reports 280 failures in the United States during the past week-31 more than the preceding week, 44 more than the corresponding week of 1882 and 135 more than the same week of 1881. About 75 per cent. of the failures were those of small traders whose capital was less than \$5000. On the Stock Exchange during the week under review the market has been irregular and classes unsettled and weak. The principal event affecting prices was the dissolution of the Iowa pool and adoption of the so-called tripartite agreement by the Union Pacific directors, causing a sharp advance. A fall in the New York and New England was attributed to an alleged discovery of liabilities not included in the annual report. Oregon and Transcontinental advanced, on confirmation of the report that the company had been relieved of \$9,000,ooo of its securities in par value by a syndicate, and a drop in Western Union was said to be owing to the threatened opposition of the new Commercial Cable Company. Later in the week rumors respecting further railroad troubles had a depressing effect. To-day, after several wide fluctuations, prices closed only fractionally changed. The principal dealings were in Union Pacific, at 7434; Western Union, 74; Lake Shore, 983/8; Texas and Pacific, 18; Kansas and Texas, 211/6; Erie, 271/8; Denver, 23; Central Pacific, 64; Il inois Central, 1211/2 ; St. Paul, 92; Northwestern, 1157/8; Lackawanna, 116; Oregon and Transcontinental, 36%; Oregon Railway and Navigation, 101; Northern Pacific preferred, 553%; Reading,

The general markets were seldom so dull. Prices for the most part are nominal. Dry goods are quiet, but the export movement is of fair proportions. Shipments of domestic cottons since January 1 amount to 163,000 packages, against 160,000 to the same time sive, and transportation checked in every direction by the snow embargo, transactions have necessarily been on a reduced scale—holiday traffic excepted. Added to this is last year. Coffee is quiet on a basis of 12¢ the preoccupation of merchants in their India rubber is very dull. Rice firm. Sugar annual settlements, the indifference of buy- steady. Tobacco quiet, but generally firm. Breadstuffs are depressed, neither exporters nor home buyers showing much interest. Coffee remains lifeless, but an advance of our local bankers to have been very fair this  $4 \phi$  is quoted. Provisions are weak; ex-

#### GENERAL HARDWARE.

The holidays and the closing year unite their influences in reducing trade to a minimum, there being little demand or inquiry for goods. Prices, as a rule, are nomina and unchanged. One of the questions that are waiting for an answer is as to what will be the future course of prices. During the leave, an advance or a cut on some leading dull months it is anticipated by some that there may be lower prices on certain lines of goods owing to active competition, while there are, on the other hand, indications that in some lines there will be such arrangements among the manufacturers as will decidedly stiffen prices. Stocks of Hardware in dealers' hands are smaller than is usual at of the country, are not direct competitors, this season, and orders are given with great caution, many telegraphic orders being sent in for small and pressing wants. There is no great accumulation of goods in the factories, makers having being in most cases careful not to manufacture much in advance of the demands of trade. The general individual buyers. financial condition remains sound, in spite of occasional embarrassments and a tendency to tardiness in payment of bills. So that, on the whole, the year, which has been perhaps either. Men who do their own thinking, an average one, closes with a fair prospect

HARDWARE SYNDICATES.

in silver from Mexico, and the exports of which have come to us on this subject and firm are receiving amusing letters and messpecie amounted to \$561,916, mostly in silver appeared in our columns, most of them have The imports since January I exceed been in opposition to the practice of syndicate buying and selling. We take especial The bank return for the week shows an pleasure in laying before our readers the comincrease of \$1,638,175 in surplus reserve, munication which follows from Clement M. which now stands at \$6,894,750, against Biddle, of the house of Clement M. Biddle & \$5,272,175 at the same time last year, and Co., Hardware buyers in this city, Philadel-\$1,543,300 at the corresponding date in 1881. phia, Chicago and Pittsburgh. It will be The loans show a gain this week of \$770,300. read with special interest as combatting cer-The fact that the deposit liabilities are now tain views which have been expressed upon nearly \$31,000,000 greater than at this time the subject, an I containing a statement of last year reflects the general business stag- the methods which are pursued in the prosenation. Contrary to the usual experience cution of their business. This new contriat this season, the money market promises bution to the discussion will recall attention a continuance of ease, especially as the to questions which have been suggested be-Treasury will pay out large amounts fore, as to the influence which will be within the next few weeks on account of exerted upon the future course of trade by called bonds and interest. These figures re- the system of syndicate buying and the present only a portion of the accumulated manner in which it at present bears upon cash available whenever the opportunity the interests of jobbers and manufacturers

We may add, in explanation of a reference in Mr. Biddle's letter that a number of copies West and South, in part to aid speculative of The Iron Age, which contained the comoperators in grain and provisions. We munication which has aroused this discusquote 60 to 90 days' indorsed bills receivable sion, were sent, at the request and expense 5 @ 51/2 %; four months' acceptances, 51/2 @ 6. of "Jonathan Dudley," to a list of manufac-

> To the Editor of The Iron Age: While interested in reading the late discussions on the delivery of goods, the relations between manufacturer, jobber, retailer and consumer, also on what is called syndicate or com-bination buying, I have waited in vain to see the other side of the story more fully written. For many years I was at the head of one of the then largest jobbing Hardware houses in the country, and since, as treasurer of a Hardware manufacturing company. I have examined the question as a manufac turer. Now, as a combination buyer (as it is called), I look from a different standpoint, but fail to find the world changed. We may write out long theories and principles of business, but the fact remains that the consumer buys his goods as cheap as he can and the manufacturer sells his product at the highest possible price. Experience has shown most of our large manufacturers that it costs them more to sell 200 consumers an average of \$25 each, than to retailers \$2500 each, and still less to sell one jobber \$5000 worth of their goods. It is, therefore, to their interest to give the retailer an extra

> discount, and to sell to the jobber lower still. The jobber can distribute 100 different articles to the retailers cheaper than 100 manufacturers can do it, each having to pay salesmen's salaries and traveling expenses. So far there are no conflicting interests. The consumer is getting his goods at the cheapest rate, and the manufacturer is realizing for his goods all that he can secure in any other way. Gradually the larger consumers try to get nearer the manufacturer. They go to the jobbers or the manufacturers direct. If they cannot take the quantity of goods required, they join with their neighbors and divide. The retailers do the same. They object to the jobbers selling consumers, refuse to buy from any who do but they will combine at any time to se cure bottom rates from manufacturers who will sell them. So also with the jobbers. They will threaten any manufacturer who sells either retailer or consumer. They claim the right to be the distributors of all goods. They approve of a quantity limita-tion, provided the extreme is just where they can reach it. If not, they combine to take the quantity. They want goods deliv-ered, but think it foolish to deliver beyond where they live. I have no controversy with this; in fact, I sympathize with them, as they are the natural distributors of goods

> Strange as it may seem to us, the jobbers are an American institution; we do not find them in France, Italy, Germany, England or any of the European centers of trade. Who buys English or German goods except from the manufacturers direct, or through combination buyers like H. Boker & Co., A. Field & Co., and others who make a business of buying on orders, and are in no sense job bers in England or Germany. More than largely of, but when we came to the 50 other smaller articles we wanted, we found we ould buy through regular buyers like H. Boker & Co. and A. Field & Co. oughly kept the run of the markets, cheaper than we could hunt manufacturers up, even being on the spot, leaving out of account our time and traveling expenses and including their commissions. In fact, I have often their commissions. questioned whether the time lost and traveling expenses did not cost more than if w had placed our entire purchases through

All of the buyers of our leading jobbing houses make it a point to visit leading cen-ters of trade frequently to post themselves. It pays well, and yet an occasional visit does ods may take place, and before they hear of it their more enterprising neighbor has bought out their stock or filled up their customers with goods. Some of the California houses keep resident partners in New York at a cost of many thousand dollars per year. But few houses can afford this, and so several parties who, living in different sections combine and employ an agent to represent them. It is not only the fact that the ex-pense is lessened, but the increased ability to buy larger amounts of goods and an ac-quaintance with different markets are found to benefit them, and the California houses are adopting the system in preference to

In last week's editorial in The Iron Age you invite the views of the manufacturers who sell or the merchants who buy through the syndicate; but you are not likely to get and who are wide enough awake to see good thing when it is offered, without wait ing to ask how others like it, &c., are not those who will rush into print and encourage

sages from them in reference to the amount of free advertising we are receiving, and asking why we have not replied. Simply because we have seen so little for us to answer. We are the resident agents in New York. Philadelphia, Chicago and Pittsburgh of forty-five wholesale jobbing Hardware houses, scattered over the United States houses, scattered over the United States from Maine to Colorado, and from Minnesota to Texas. We try to attend to their wants and requests, and generally succeed in that. We think it more profitable to do so than to try and please those who do not employ us.

Nearly all the criticisms, so far, have been

against those who buy for consumers or retailers. There may be some who do; if so, it is none of our business, and we find it more profitable to attend to our own affairs than other people's. We buy for neither consumer nor retailer. Some of our correspondents retail, as the Simmons Hardware Company do, but all are jobbers with travelers on the road. None of them are the *legiti-*mute trade of the jobbers, unless they use them to sell at a cut rate, and, combining their orders, secure an extra from manufac turers which they would not otherwise ob tain. Four of them are smaller dealers than we would now arrange to buy for, but they stood by us when we needed assistance and wanted correspondents, and we intend now to stand by them, and buy at the lowest price we can secure for them, although not necessarily as low as our largest correspondence We make no secret of our business from the men we buy for or of; our goods are shipped direct, and every manufacturer, if he wants to, knows who buys them, and we prefer he should charge and settle directly with them. Nearly two years ago, when the same misrepresentations were made in reference to us, we issued 5000 circulars as below, and sent one to every leading manufacturer :

#### PHILADELPHIA, 3d mo. 6th, 1882.

PHILADELPHIA. 3d mo. 6th, 1882.

To Manufacturers: Hitherto we have taken no notice of the many misstatements in regard to our business, but it is now a duty we owe to our friends and correspondents to explain our position. We are purchasing agents for 29 wholesale jobbing Hardware houses scattered over the United States, and are, unquestionably in a position to place larger orders than any other parties in the market. [By a careful estimate, we find the several parties we represent sell more goods than the entire wholesale jobbing Hardware trade of Philadelphia and New York combined.]

We are prepared to negotiate for the purchase of Hardware, Nails, Iron, Glass, &c., in the largest lots, also for any particular lines of goods, or for the entire surplus of any moderate-sized manufactory. Goods are shipped and charged directly to our correspondents, or for a proper consideration we will cash all purchases in 10 days. Manufacturers will find this a much cheaper and better way of disposing of surplus stock, than by agencies or by incurring the expenses of traveling salesmen, and can do it without breaking the market.

Specials can be given us, either by an agency at

market.

Specials can be given us, either by an agency at any one of our offices, by a salary, as traveling expenses, or in any other acceptable way. When necessary, we will guarantee to keep all specials strictly confidential. We will be pleased to receive your best prices by return mail or have you call on us.

To the Wholesale Jobbing Hardware Trade; To avoid any misunderstanding or unnecessary correspondence, we have adopted the following terms, from which it will be useless to ask us to vary; We sell no goods except to our regular correspondents. We will buy for none but wholesale jobbing houses. We will buy for no house whose sales do not reach \$20,000. We issue from our several offices (daily, when necessary) bulletins giving the changes of the various markets, and prospective declines or advances, with confidential quantity or special discounts. When we expect an advance we place or ders and secure contracts on our own responsibility, at old prices, so far as possible, and when the advance comes, we give the benefit of it to our correspondents. We promptly place all orders sent us, at the best price and on the best terms possible, at the risk and on account of the purchasers, giving them all the advantages which a thorough knowledge of the various markets renders possible in the way of extra commissions, quantity discounts, &c., &c.

Our correspondents settle directly with manufacturers, except in a few cases where for special reasons there is an advantage in remitting through us. For the above work we charge a small salary, payable monthly. Where we buy in our own name we charge goods at cost. In these cases we take advantage of all cash discounts, and if we receive remittances from our correspondents before or on the day we remit, we credit the cash discount; otherwise the cash discount in our name we pay when due, and we expect monthly settlements. If not paid when due, we draw at 15 days is gight, with 1 per cent, added for advances and interest. In all contracts we insert the following clause:

"Where manufacturers or agents expressly stipulate and will only sell on condition that the To the Wholesale Jobbing Hardware Trade : To

we draw at 10 and advances and interest. In all contracts we in the following clause:

"Where manufacturers or agents expression and will only sell on condition that

We have seen no reason to change our policy, and if any manufacturer does not understand us, it is his fault, not ours. The criticisms which might apply to us are:

"The only argument we have heard it favor of syndicate buyers is this—"that

good prices as the largest jobbers can get Answer.-We certainly do, and generally

to \$2000 in six months. Why! Because the Tack men know they can afford to sell one party that amount 5 per cent. cheaper than one who buys but \$300. Our purchases of Tacks last month were \$17,-023.74, and this month will exceed \$20,000, amounts which we understand are larger than the largest jobbers in this country can take in a whole year; we take the entire product of two factories, save them all expenses for salesmen and traveling, and probably buy as low as the largest jobber.

Third.—That we demoralize the market,

Answer.-Where manufacturers are working against us, if it is to our interest, we do it sometimes pretty effectually. But take Tacks again. We agreed with the Central Tack Company—the strongest combination in the Company—the strongest combination in the country—that if they would let us alone we would cut off any of our correspondents found underselling. We have yet to hear of the first complaint (more than can be said of many large jobbers), and I assert, without fear of contradiction, that we are the only house in this country that could handle the amount we do without demoralizing the

Fourth.-That circulars are issued broad-

cast to Hardware dealers.

Answer.—We only send to our own correspondents. We have had frequent liberal offers for a copy of our daily confidential quotations of changes, but always declined such

This covers the main points which apply This covers the main points which apply in any way to the workings of our firm. Others may do differently, but, as I said before, that is their affair, not mine.

I have written at far greater length than I expected to, but as J. D.'s letter was sent

to a carefully prepared list of manufacturers known to be inimical to the workings of our system, with a request to answer it, natur-ally the most of the answers are one sided. I have gone deeper into the matter than I otherwise would. I do not expect all manufacturers to like it, for we cannot buy from all. I simply want them not to be misled as to what we are really doing. If they do not approve, we have very little concern on the subject. We notify our correspondents to that effect, and what the bottom price is. They generally succeed in getting it direct, and we have no further trouble on that line of goods until some one else who does see money in it, gives us a better price. I find that most manufacturers who are violently opposed to us manage to get hold of a list of our men and give them. our men and give them bottom prices anyhow.

It is stated that the Cutlery, Saw, Lock, File, Wood and Steel Goods combination decline to sell us. In reference to some of them, it is the first I have heard of it. In three of the cases mentioned it is well known by them that we are handling goods at from 5 to 15 per cent. cheaper than combination rates, and not buying association goods, except where parties want a few special brands, and then we seldon fail to get full quantity discounts. Our experience is that when any one gives out publicly that he will not any one gives our publicly that he will not sell us, we soon have ample offers from job-bers not in our combination even, to help them make up quantities, and we can get what we want at bottom rates, or lower still, with no restrictions as to sale. I could give pointed instances of this since this discussion has been going on, but have confined my remarks to subjects already brought in by others. Excuse the length of this, and should any one else cover the points mentioned, or most of them, please omit publishing, and oblige,

CLEMENT M. BIDDLE.

In the following letter the point is taken that the manufacturer who disposes of his goods through the syndicate buyer in so doing places himself in hostility to the jobbers, who in consequence will be led to refuse to purchase his goods, the view of our correspondent being that manufacturers will not be able to sell to both classes of buyers, but must choose between them. The remedy proposed is left with the jobbers-'Let them become a unit in action, protecting the manufacturers who protect them :

To the Editor of The Iron Age: We are engaged in the manufacture of an article which has become a part of the domestic economy of nearly every household in the whole extent of this Continent; we are ll only sell on condition that the therefore lateressed in an element of Biddle & Co. will not give away plans proposed for the economic distribution of goods. A manufacturer must either mar-the recognized methods which the science of rebate, as additional compensation for their services."

We make no money, directly or indirectly, except our salary, our interest account as stated, and such special commission, as, per above clause, we cannot possibly get for you. All remittances should be made to, and payments are made by, our Philadelphia house. We have offices in Philadelphia house. We have offices in Philadelphia, New York, Pittsburgh and Chicago.

Export Trade.—For our export trade, we buy in our own name, and pay cash 30 days, unless otherwise agreed on.

Importation Orders.—We will send out orders for importations whenever ordered in sufficient quantities to warrant a separate order; or we aggregate orders and best prices.

Manufacturers 'Agenta ususing to increase their sales to retain the control of their accounts, without breaking the market, will find it to thair inserest to offer us inducements.

Sulesmen selling on commission will find that by making a confidential division of their commissions with us, they can increase their sales at a cheaper rate than in any other way.

Jobbers or Speculators who have bought on a rising market and wish to realize promptly without breaking the price, or those who are unable to use the quantity of goods required to get special rates and wish to dispose of the surplus at a small concession, will do well to write to our Philadelphia office on the subject. Cash advances made while completing sales.

We have seen no reason to change our

The only argument we have heard in favor of syndicate buyers is this—"that First.—We want manufacturers to charge facturer to market off goods at reduced prices." The figures quoted by "Jonathan Dudley" confirm this theory. This whole matter is within the grasp of, and can be used at times by the manufacturer to market off goods at reduced prices." The figures quoted by "Jonathan Dudley" confirm this theory. This whole matter is within the grasp of, and can be controlled by, the jobbers. Let them become a unit in action, protecting the manufacturers who protect them: they will then bill of lading.

Szcond.—That we claim for our men as facturers who protect them; they will then have taken a long step in advance of their present position; but, so long as they place get them or better. It is what we are paid their orders with those who sell as low to for, and why should we not have them ? As syndicate buyers as to them, just so long will

The following communication from the well-known Western house whose signature it bears was crowded out last week by the pressure of other matter, and we have pleasure now in laying it before our readers. It directs attention to a troublesome and annoying feature in the Hardware trade. Its lists, at best, must be extensive and complicated, but it will promote the convenience of merchants to have them as uniform and permanent as possible:

To the Editor of The Iron Age: While through your columns recently attention has been called to minor abuses and annoyances in the trade, permit me to mention one of the more serious. We refer to the frequent change of standard lists. Every little while the Screw or File or Bolt or Lock manufacturers think to cure all trouble brought on by an oversharp competition, by juggling an established list out of all likeness to its former self, so that its best friend would not know it. New figures and new dis-counts must be learned, and all the con-fusion endured which ari es from explaining to the purchaser that the quotation is from old or new list, as the case may be, to say nothing of the errors made by salesmen be fore the new prices become part of their mental fixtures.

One most extraordinary idea seems to lie at the base of some of these changes, viz., that it is easier to change the list than the discount—that if, for example, 50 per cent. has been the least discount on a certain line of goods, and an advance becomes necessary it is better to mark the price up on each size and kind, through a maze of tabulated figures, than to mark the discount correspondingly down. This was done by the File manufacturers a couple of years ago, with a result that might have been safely predicted from the start, for within a month or two after the discount increased on the ad-vanced list till the net result on the leading sizes was exactly the same as before the change. The folly of such frequent alterations, and the unfortunate discrepancies of lists, have been brought forcibly before us in the preparation of our catalogue for 1884, just published. Starting out with the Iron list, there is the difference, first, between Eastern and Western classification. Pittsburgh sells part of its product by one and part by the other, according as it goes over the Alleghanies or down the Ohio. Why should 4-inch Round be 1.10 over %-Round on the Western card, and only .50 advance over the same size on the Eastern? Again, without quitting the Iron card, the Hoop and Band manufacturers have one list of advances, the Merchant mills another, for the same widths Is there any reason that mills and gauges. situated on adjoining lots, with the same class of labor, the same fuel, and with the same conditions generally, should list 3 to 6 x 1/4 at a difference of \$4.30 per ton. We should like difference of \$4.30 per ton. We should like to see a movement toward reconciling these discrepancies. It is impossible to prevent mills from quoting such specialties as they are adapted for lower than an average card, but that need not interfere with the establishment and maintenance of a standard list any more than special prices on Eastern 3d. fine Blued Nails has upset the Nail card.

When we came to Carriage Bolts (in the preparation of the catalogue) the list of March, 1883, was just out, reported as the result of careful work of the committee. It result of careful work of the committee. It was supposed to be just the correct thing, so we destroyed our old electrotype page and set up the new table. Before completing the book, however, it transpired that some of the largest manufacturers repudiated the new list and quoted persistently from the old, so we had to have the old list set up and in-serted with an explanation. R. B. & W. Tire Bolts were properly listed in our copy, and when the several thousand forms were safely off the press the manufacturers advised us that on  $\gamma^p_g$  and  $\frac{3}{4}$  diameters they had materially advanced the list,  $\frac{1}{4}$  and  $\gamma^p_g$  remaining the same. We accordingly erased our printed list, secured extra sheets, circulated in connection with the information. and carefully inserted the same in some 500 books destined for our largest customers, when the manufacturers further advised us that they had discarded the list as changed; at a different discount for the two diameters in question. Imagine the incident confu-sion. Our Steel Wire Nail table sion. Our Steel Wire Nail table, occupying a page, has just been rendered worthless by the substitution of a new advanced list throughout, and so with Axle Washers.

Every Hardware dealer will recall the happy period when all leading Horse Naïls listed the same, and the variation in price was secured very simply by different dis-We contended for uniformity of list in The Iron Age when the split first appeared, but without result; so now we see 8's listed with the following individuality: Northwestern, 20; Putnam, 21; Globe, 18; Ausable, 25, which means that there is a much larger discount to be had on Ausable than on Globe. Every one who has ever published a catalogue lives in constant apprehension of a revolution in the lists of Rivets, Bright Wire Goods, Bits, or whateve it may be, which will do worse than set at naught his work—namely, precipitate con-fusion. With what satisfaction we contemplate such a monument of stability as the Stock and Die lists—stability worthy of a King. We have always thought that it King. We have always thought that it would be a delightful evidence of fraternity, while most acceptable to the trade and every consumer, if the Axle manufacturers of the United States would agree on uniform section measures for their Axle Points, common and half patent, so that Pipe Boxes would be interchangeable, size for size. Any large Carriage or Wagon maker might have his special patterns, of course, but the trade Axles would be alike. And so with the West Troy, N. Y., Dec. 22, 1883. Hardware lists—let us make them uniform on paper, at least, for the use of the thouon paper, at least, for the use of the thou-sands, and vary them only where need be to the very few where such variation can be ware Manufacturing Company, to that of a

OBITUARY.

We have also at this time to record the death, on the 21st inst., of William B. Stanley, in his seventy-ninth year, at his home in New Britain, Conn. He was the brother of the late Hon. Frederick T. Stanley, and his lifelong business associate.

We have also at this time to record the death, on the 19th inst., of Elisha H. Cook, a prominent business man of Elmira, and widely known in the trade for many years as a Hardware merchant in that city. His first connection with the trade was about the year 1850, when at nineteen he went to Elmira as clerk in the Hardware store of Riggs Watrous. After a few years, for his native force of character and shrewd business tact, he was taken in partnership by Mr. Watrous, the firm then being composed of these two and H. Seward. Watrous and Seward afterward retired and Mr. Cook and Henry Coville continued the business. Later, Mr. Cook was connected with Messrs. Barker & Dounce also Hardware merchants. In 1871 he dissolved partnership with this firm and established his late business of steam fitting, plumbing, &c., in which, in 1876, J. H. Steadman entered into partnership with him. This business has constantly grown until it has reached its present proportions, employing nearly 200 men and business he was known as a man of unquestioned integrity, sound judgment and with a keen insight into the character of those with whom he came in contact. Very appreciative tributes are paid him by the press of his own city, and he will be regretted by a large circle to whom he was known.

NAILS. The influence of the proposed stoppage of the Western Nail mills has already been favorably felt in this market. The downward tendency in prices seems to have been completely checked, and sales are no longer being made at the extremely low prices which prevailed a week ago. There will be no meeting of the Eastern Nail manufacturers until the second week in January, so that it is not probable that any concerted action will be taken before that time in regard to the closing down of Eastern factories during the Western suspension. In the meantime, the matter is being fully discussed privately, and there is a strong sentiment in favor of co-operation with the West for at least part of the period in which their factories will be closed. Even if the Eastern factories are not closed by the action of the association, it is evident that for several weeks their output will be considerably less than usual, as many of them will be closed for repairs, while the New England factories are again short of water, and are obliged to suspend operations for days at a time. The demand for Nails is now very light, as might be expected, but stocks are not excessive. We quote \$2.70 for ordinary lots, with \$2.60 named as the regular, price for large lots to

BARB WIRE.

It is announced that the syndicate of Barb Wire manufacturers, incorporated under the name of the National Barb Fence Company, have secured subscriptions for the total amount of their stock, and that a meeting of the stockholders will be held at Chicago on the 27th inst., when the company will be fully organized, and as soon as possible thereafter the proposed plan will be put into operation. There is little doing at present in the way of sales, this trade being affected by the holiday duliness as well as others. The outlook, how ever, continues as favorable as previously reported. Prices in this vicinity continue firm at 71/4 cents per pound for ordinary lots, and 6 cents for large quantities.

CANADIAN INVOICES. We would remind the shippers of Hardvare to Canada that by a recent law, which goes into effect the first of January, 1884, all American invoices are required to be certified to in the name of the firm. There is no necessity for making an affadavit before a notary or justice of the peace, but it is required simply to use a form such as this: "I, or we, certify that these prices are correct," and sign it in the firm name. Shippers by attending to this will save trouble, as invoices not certified to will need to be returned before the goods can pass the custom

The manufacturers of BLACKSMITHS' VISES

have been in conference, and, as a result, the regular price has been made to discount 50 per cent., with additional quantity dis-

We desire to recall the attention of ou Supplee & Walton, Philadelphia, which appeared in our last issue. They have secured the traveling salesman for Virginia trade, but still desire one familiar with Pennsylvania trade. Hardware salesmen having the requisite experience, and desiring such a connection, will do well to address them.

The trade will notice the change of name as announced in the following communica-

NEW CATALOGUES AND PRICE LISTS.

W. B. Belknap & Co., Louisville, Ky., have just issued a new illustrated catalogue of the goods which they handle as manufac turers, jobbers and agents. It is their fifth extensive Hardware price list, and while it is similar in style to their last, it is materially enlarged, containing over 500 pages of printed matter, admirably adapted to the general use of the Hardware trade. ndex of this edition is printed at the beginning instead of at the end of the list, as in their last catalogue, and is, we may remark, exceptionally complete and satisfactory. addition to the list of general Hardware, the catalogue will be valuable as covering Iron and Wagon goods. The book opens with the standard Iron list and then passes to Corrugated Sheet Iron, Steel materials, Nuts, Bolts, &c., in large variety; after complete lists of Nails and Screws to such heavy goods as Anvils and Vises, of which there is a large variety. Next follow Contractors' goods, Sledges, Picks, Road Scrapers, Wheelbarrows, Rope and Tackle Blocks, when we come to the department of Shelf Hardware proper. Some 12 pages have been bestowed on Hinges besides Coach Hinges under Carriage Hardware; 13 on Padlocks; 30 upon Door and Chest Locks, and so on through this portion of the book. Closing amounting to \$250,000 per year. In his the Hardware are seven pages devoted to Wire; 10 to Plow Goods, &c., leaving 100 pages at the end to be taken up with Wagon and Carriage goods. The volume concludes with some tables valuable for reference, showing the weights of Bar Iron, Elliptic Springs, Platform Springs, Steel Slabs, Steel Tires, Sheet and Plate Iron, Wire, Machine Bolts, Rivets, Spikes, &c. A feature that makes the book convenient for use is the fact that, as far as possible, the illustration of a single article is confined to one page. This is shown on page 51, where all the kinds of Toe Calks are illustrated. Page 240 covers Buck Saws, showing price of Billet Webs, Frames, Bucks and Rods. The compilers have successfully endeavored to avoid an overgrown bulk, while, at the same time, they have succeeded in securing a remarkable completeness. The catalogue will be valued by the trade as a very convenient book from which to order goods, and a testimony to the enterprise and growth of the concern that publishes it. We are in receipt of the catalogue and

price list of C. E. Jennings & Co., 96 Chambers street, New York, bearing date January 1884. It is a large and handsomely printed pamphlet of 136 pages, fully illustrating the extensive lines of Mechanica' Tools and Hardware specialties which they manufacture and sell. The first section is devoted to the exhibition of the Boring Implements which are made by L'Hommedieu Watrous & Co. and C. E. Jennings & Co. This is followed by a price list of Chisels, Gouges and Draw Knives made by Merrill & Wilder, and the Adjustable-Handle Draw Knives made by Watrous & Co. The Tools of the Davis Level and Tool Company are fully described, among which we may mention the Adjustable Spirit Level Plumb and Inclinometer, also the Adjustable Iron Double Plumb and Level. This is a comparatively new line of goods, but receiving we are told, increasing attention from the trade. After Shepardson's Gimlets we have a department devoted to House-Furnishing Goods, among which we observe Smith' Patent Mincing Knives, of which the manufacturers have been for some time behind their orders, but which they are now ready to ship promptly. Among the goods made by the Clark Tool Company we observe a solid steel Gimlet, designed to meet the demand for a firstclass article. These, with Bung Borers, are, we believe, new goods. Among the tools made by Reed & Co. is the well-known Griffin's Patent Hack Saw, of which there is so extensive a sale, and also a new Piercing or

Jeweler's Saw, made under the same patent. We have also received from Dame, Stoddard & Kendall, successors to Branford & Anthony, 374 Washington street, Boston, a articles in which this house prominently deals, such as Cutlery. Ice and Roller Skates Fancy Hardware, Pocket Books, Dog Collars, Razors, Fishing Tackle, Lines and Fish

readers to the advertisement of Lloyd, Reading, Pa., have issued their first illuslist: Blind Hinges, Brackets, Blind and West Troy, N. Y. Dec. 22, 1883. Broughton's Patent Sash Locks, Sash Lifts,
To the Hardware Trade: Owing to the Shutter and Sash Knobs, Door Handles and

& 156 era all kinds Door Springs.

Drawer Pulls, Nos. 10, 11, 12, 13, 14 & 15

20, 22, 24, 25, 35, 37, 39, 40, 50 20, 22, 24, 25, 35, 37, 39, 40, 50, 52, 54, 55, 27, 29, 30, ..., 50 Drawer Pulls, Nos. 32, 34, 35, 65, 47, 51, 62, 64, 42, 44, 45, 57, 59 & 60 ... 50 Drawer Pulls, Nos. 224, 239, 254, 259, 244, 259, 234, 249 & 264 249 & 264
Fasteners, Chain Door, Nos. 39, 839 & 335

Hooks, Hat and Coat, Nos. 75, 77, 210 & 215

School House, 110 & 115

Harness, 130, 132, 134 & 138.

Hat and Coat, Ornamental, Nos. 260, 265, 265 Locks (Broughton's Patent), Nos. 40, 41, 42 ash Locks (Broughton's Patent), Nos. 45, 50, 51
sash Locks (Broughton's Patent), Nos. 45, 50, 51 80, 35, 90, 95 & 100.

Sash Locks (Broughton's Patent), Nos. 155, 75, 75, 185 & 190.

Sash Lifts, Nos. 155 & 160.

"No. 940.

Shutter Knobs, Nos. 290 & 295.

No. 896.

Store-Door Handles, Nos. 140, 141, 142, 148, 144, 145, 147 & 148. We are in receipt of a catalogue of the Rus-

sia Cement Company, of Gloucester, Mass., a very neat pamphlet, pocket size, which is interesting as a description of the manufacture and use of Fish Glue. After a reference to the state of the art previous to 1876, wherein the advantages of Fish Glue or Isinglass, as it is commonly called, are mentioned, there is a description of the new method pursued by the Russia Cement Company, which has made the trade a practical success. The reader is then given a list of special uses to which La Page's glues, made by this company, are adapted, among which are mentioned its use in boot and shoe manufacture, for sizing textile fabrics, for the manufacture of oil cloth, for gumming paper and envelopes for family and office purposes, and for wood and carriage work. We are informed that there is a large and increasing demand for this line of goods, and many testimonials are given as to their adaptation and worth for the different uses for which they are recommended. The following is the price of La Page's Family Glue, which is subject to a discount of 20 to 25 per cent., according to the amount of purchase:

Bottles, large size, per gross.

small size, per 100 bottles.

large size, per box of 12 bottles.

small """ 20" We give below the price of La Page's Mucilage, subject to the same discount : Quart bottles, per dozen..... " " gross... 12.00 The Mucilage in quart and pint bottles is put up in packages of a dozen, and the bell bottles in packages of a quarter gross. A NEW CUTLERY LIST.

The following is the new list of the Goodell Company, Antrim, N. H., manufacturers of Table Cutlery and a large line of Knives, to whose special features we alluded last week. The Alford & Berkele Company, 77 Chambers street, New York, are the special agents for the sale of these goods, and carry a full line in stock. The list which we publish below has been thoroughly revised and made subject to a uniform discount of 25 per cent. The catalogue of these goods will be fully illustrated and issued about the 1st of January.

Knives and Forks-Patent Combination White Metal and Ebony Handles (Taylor's Patent) Square End. Hollow Bolster, Silver Plated. Knives only, Table, per doz Medium "Dessert " No. 8, Dessert "No. 9, Forks only, Four-Tined, per doz. No. 1: Forks only, Four-Thied, per doz. 10.00 White Metal and Ivory Handles, Square End, Hollow Bolster.

No. 31. Table, per doz. \$6.67

No. 32. Medium " 6.67

No. 33. Dessert 6.12 .\$6.67 6.67 cuts of their manufactures and including a number of new articles which they have not heretofore offered to the trade. The index shows the following goods included in the list: Blind Hinges, Brackets, Blind and Shutter Bowers, Bolts, Chain Door Fasts, Cupboard Catches, Chein Door Fasts, Cupboard Catches, Chest Handles, Casters, Door Springs, Drawer Pulls, a variety of Hooks, Latches, Match Safes, Pulleys, Broughton's Patent Sash Locks, Sash Lifts, Shutter and Sash Knobs, Door Handles and Toy Tools. The following is their list of discounts to the trade:

| Dis. per cent. | Dis.

December 27, 1883. .50 No. 130, Cocobolo Handles, with Bolster and Cap, per doz. prs. No. 230, Ebony Handles, with Bolster and Cap, per doz. prs. Cap, per doz. prs. Straight Blades, 8 inch. Solid Oval Cocobolo Handles. Fork without Guard, No. 30, per doz. Steels.—Patent Combination White Metal and Ivory or Ebony Handles. Hollow Bolster. No. 69, Ivory and White Metal Han., per doz813.33 No. 70, Ebony No. 71, Cocobo No. 78, Ebony Solid Cocobolo Swell Handles, with Bolster and Knives and Forks.-Solid Handles. No Bolster. Coco. Knives and Forks, Table, per gross, \$10.00 only, 12.50 No Bolster.
Coco.
Knives and Forks, Table, per gross. \$12.08
only,
14.59 No. 78. With Bolster and Cap. Coco. Knives and Forks, Table, per gross. \$14.17 only, 16.67 No. 761. With Bolster and Acorn. Coco. Knives and Forks, Table, per gross.\$13.75 only, 16.25 No. 781. No. 791. Ebony. \$17.08 19.58 With Bolster, Acorn and Cap. Coco. Knives and Forks, Table, per gross. \$15.83 only, 18.33 Solid Swell Handles. With Bolster. Coco. ives and Forks, Table, per gross, \$16.67 No. 240, Ebony, \$18.38 No. 241. Knives & Forks, Medium, per gro.. \$16.25 Curved and Swedged Back (Cimeter) Blades, \$1.07 extra. Knives only, \$2.50 per gross extra. With Boister and Cap. Coco.
Knives and Forks, Table, per gross. \$19.17
Knives & Forks, Medium, per gro., \$18.75
Curved and Swadowd Parks. \$20.42
Curved and Swadowd Parks. Curved and Swedged Back (Cimeter) Blades, \$1.67 extra. Knives only, \$2.50 per gross extra. Curved and Swedged Back (Cimeter) Blades, Solid Swell Handles. Coco With Bolster. No. 140 C No. 240 C No. 240 C Knives and Forks, Table, per gr. \$18.83 S 0.00 No. 141 C No. 241 C No. 241 C Knives only, \$2.50 per gross extra. With Bolster and Cap. No. 137 C. No. 237 C Knives and Forks, Table, per gr. \$20.83 \$22.50 No. 238 C Medium, per gross 90.41 Knives only, \$2.50 per gross extra.

Knives only, \$2.50 per gross extra.

With Bolster and Acorn. Coco.
Knives and Forks, Table, per gr. \$18.23 \$20.00

No. 1411 No. 2411

No. 2411 Curved and Swedged Back (Cimeter) Blades, \$1.67
extra. Knives only, \$2.50 per gross extra.

No. 1871 No. 2371
With Bolster, Acorn and Cap. Coco.
Knives and Forks, Table, per gr. \$20.83
22.50
Medium, per gross 20.43
22.50
Curved and Swedged Back (Cimeter) Blades, \$1.67
extra. Knives only, \$2.50 per gross extra.

No. 1372 No. 2372
With Bolster, 2 Acorns & Cap. Coco.
Ebony.
Knives and Forks, Table, per gr. \$22.50
X0. 1382 No. 2382
With Bolster, 2 Acorns & Cap. Coco.
Ebony.
Knives and Forks, Table, per gr. \$22.50
X0. 1382 No. 2382
X0. 2382
X0. 2382
Curved and Swedged Back (Cimeter) Blades, \$1.67
extra. Knives only, \$2.50 per gross extra.

No. 1140 No. 22.40
With Bolster, Acorn and Star. Coco.
Knives and Forks, Table, per gr. \$29.00
X0. 1140 No. 2241
X0. 1141 No. 2241
X0. 1241
X0. No. 2871 Ebony. \$22.50 No. 2881 22.08

Knives and Forks-Scale Tangs. No Bolster. Coco, Ebony. Bone.

Medium K. & F., pr. gr... \$7.50 \$9.00 \$10.00

"Knives only," 10.00 11.50 12.50

"Forks only," 7.50 9.00 10.00 No. 111. No. 211. No. 511. Coco. Ebony. Bone. 12.50 14.54 15.00 10.00 11.00 12.67 With Bolster. Coco.

Medium K. & F., pr. gr. \$10.00

"Knives only" 12.50

"Forks only" 10.00 | No. 112, No. 219, No. 512 | With Bolster and Cap. Coco. | Ebony. Bone. | St. 00 | 85.88 No Bolster.
5.42 Table K. & F., pr. gr.....
5.00 Knives only, "Forks only, " No. 120. No. 220. No. 520 No. 181. No. 221. No. 521. Coco. Ebony. Bone. \$12.08 \$18.38 \$16.00 14.58 15.88 19.34 12.08 13.33 16.00 With Bolster.
Table K. & F., pr. gr....
"Knives only,"
"Forks only,"
With Bolster
and Can With Bolster No. 122, No. 222, and Cap. Coco. Ebony. Table Kn. & F., per gro. \$14.17 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 | \$15.42 No. 522. Bone. \$18.00 21.84 18.00

Knives and Forks, Scale Tangs, Swell Handles 

Butcher Knives.—Solid Cocobolo Swell Handles.— With Bolster.

No. 145, 5 in. blade. 14516, 516 in. bla 146, 6 in. blade.	Per doz. \$3.05 ide 3.25 3.33	No. 147, 61/2 in 148, 7 in. 149, 8 in.	Per doz blade\$3.6 3.9 5.5
		es.—Solid ter, Star a	Cocobolo Swel
No. 1145, 5 inch No. 114536, 536 No. 1146, 6 inch	Blade, pe inch Blade Blade, pe ch Blade, p Blade, pe	r doz per doz r doz per doz	\$3.6 3.8 4.0 4.3 4.6
Skinning Kn		d Beech H Blades.	andles, Extra
No. 257, 416 inc No. 259, 515 " No. 260, 6 " No. 261, 616 "	h, per doz		2.0
Solid Cocobole		s.—Extra Bolster.	Curved Blades
No. 59, 536 "No. 60, 6 "No. 61, 616 "			4.0
"Royal" Slici Handle, wit	Swell Har 58, 6 inch E es, Beech Dz Handles, er doz ng Kniver h Bolster.	with Bolst Solid Co. Star and	celsior," with loz\$3.7 No. 268, 6 inch\$1.7 ter, No. 68, 6 \$3.0 ocobolo Swell d Acorn, No\$6.6
	Miscellane	ous Knives	9.
No. 151. No Bo 10 inch Blade No. 153. No Bo	tion Plated Ister, Shar , per doz Ister, Shar	l, Square I p or Squa	re Point,
Blade, per do Bread Knives.	Solid El	oony and	Cocobolo Swel
No. 44. Cocobo	Handles, w lo, per do	vith Bolster	r
No. 144. Ebony Round Handles			per doz 2.0
"Star" Hunti Handles,	ng Knive	s. Solid ter, Acorn	Cocobolo Swel
No.	Per doz.	No. 169. 616 in 170. 7	Per doz

Putty Knives. Solid Coco. Handles, with Bolster No. 100. 334 inch Blade, Square Point, per Square

Cincinnati Pattern, per doz.

Kitchen Knives, square & sharp point, pr gr. \$4

Broom "Cuthage" "Cutting off," per gross.....
"Spotters," per gross.....
per gross..... Budding Goodell's Best Shoe Knives. Straight, sq. point, 2, 2½, 3, 3½, 4 in., pr dz...\$1.67
2½, 3, 3½ in. wide, per doz...\$1.67
4, 4½ inch wide, per doz...\$1.80
4 inch, extra wide, per doz 1.95
4 inch, extra wide, per doz 1.95
4 inch, extra wide, per doz 1.95 Straight, round point, 24, 3, 31, 4 in., per doz.

Straight, sharp point, 24, 3, 36 inch, per doz.

Narrow point, 2, 24, 24, 28, 3 inch, per doz.

Curve, 26, 28, 3, 36 inch, per doz.

23, 3 inch, narrow point, per doz.

Light curve, 2, 24 inch, per doz.

Sharp point curve, 2, 24 inch, per doz.

Hawk Bill, per doz.

Lip, per doz. Lip, per doz. Extension Blades, Spear point, per doz

lid

101

371

72

40

Sharp " wide, per doz. .... wide, per doz. .... wide, per doz. curved, pr dz. Woods' Shoe Knives. Straight, Square Point, 2, 21/2, 23/4, 3, 31/4, 4 inch, per doz..... inch, per doz. Straight, Square Point, 2½, 3, 3½, 4, 4½ inch Wide, per doz. Straight, Square Point, 4 inch, Extra Wide, 1.53 1.67 Straight, Square Point, 416 inch, Extra Wide, Straight, Square Point, 5 inch, Extra Wide, per doz.
Straight, Round Point. 3, 3½, 4 inch, per doz.
Straight, Round Point. 3, 3½, 4 inch, per doz.
Sharp 3, 3½ inch, per doz.
Convex Heel, 3½ inch, per doz.
Hawk Bill, same pattern as Goodell's, per dz.
Cutting-Down Heel, 5 inch, per doz. Slim Skiver, 51/2 inch, per doz...... Square Point Skivers, 6 inch, per doz.

American Pig.-So far as actual business is concerned, there is but little to report. Some dealers have had scarcely an inquiry during the past week, while others time when nobody is expecting to do anyfuture seems not to be affected by the seasonable duliness, holders maintaining prices with considerable firmness, and feeling confident that after the new year fairly opens prices. We quote American Tool Steel at 11¢, the demand will be sufficient to absorb any accumulation of Pig Iron that may be made by the furnaces in the next two or three hearth Machinery, 334 @ 40; Toe-calk, The prevailing prices are by no means satisfactory to manufacturers in 41/2 \$ @ 51/2 \$, with extra for special sizes general, who have for months been sell- English Tool, 15 1/2 c. ing at about the cost of production, and it is likely that, if there is no im- actions, business being confined to small lots. provement in this respect when the busi- Ordinary Steel Rods are quoted at \$46 @ \$47. ness of 1884 opens up, several furnaces Inroads are being made by domestic manu will be blown out. A half dollar to a dollar facturers on the business of importing Steel advance would impart a very different as- Rods. We hear of several Rod mills in oppect to affairs, and would change the condition of manufacturers from anxiety to cheerfulness. It is not expected, however, that such an advance will then be made, as there is no indication of a sufficient improvement in the demand to warrant it. Companies so situated as to be able to manufacturers at a profit, in spite of the prevailing low prices, feel rather comfortable over the situation, and may possibly blew in more furnaces if they find no difficulty in disposing of their current product. The next pect to affairs, and would change the con- eration and of others to be started up, the

changes of this character. The condition of the Pig Iron trade is now being very carefully watched from week to week by outside capitalists, who are ready to invest in speculative ventures whenever there is an indication of an improvement in prices. The low stocks in consumers' hands, and the small quantities held by the makers, operate toether to make the situation in Pig Iron very tempting for those who have made large profits in Iron speculations in past We quote general selling prices as years. follows: No. 1 Foundry, \$20 @ \$22 at tide water; No. 2 Foundry, \$19 @ \$20 at tidewater; Gray Forge, \$16 @ \$17.50 at furnace, equal to \$17.50 @ \$19 delivered.

Foreign Pig.-Business in Scotch Pig is very dull, consisting mainly of small lots for forward delivery. Arrivals during the past week have aggregated some 1700 tuns, principally sold to arrive. Of that not sold in advance, some was stored and the remainder sold at at about our quotations, the demand for spot lots being very weak. Nominal quotations are as follows: Carnbroe, \$21 from ship and \$22 from store; Coltness, \$22.50 @ \$23 to arrive and from ship; Shotts, \$22.50 @ \$23 from ship; Glengarnock, \$21 from ship and \$22 from store: Gartsherrie. \$22.50 from yard; Langloan, \$23 from ship; Summerlee, \$22.50 to arrive and from ship; Dalmellington, \$20 to arrive and \$21 from ship; Eglinton, \$20 to arrive. Sales of Bessemer Pig have been made, it is understood. at \$20 to arrive. Negotiations are in progress for Spiegeleisen, but we hear of no sales at the moment. Nominal quotations, \$20 for 20 4

Bar Iron.-The news from all points is corroboratory of our prediction that the rolling mills would almost universally suspend production for at least two weeks. Orders are so scarce, and there is so little pleasure in transacting business or in manufacturing at the current prices, that the inclination to take a breathing spell is remarkably unanimous. In the case of many mill owners there will not be much eagerness to resume operations after the holidays, unless orders unexpectedly come in, and in many instances attempts will be made to reduce wages before the fires are relighted. In this way it is probable that there may be a very considerable restriction of production, which, coming in connection with the improved tone of business recently noticeable, may result in strengthening the position of manufacturers very considerably, and possibly enable them to check successfully the downward tendency in prices which has continued so long. There are inquiries for January delivery, but sellers are reluctant to place orders very far ahead at current rates, preferring to take their chances of the future. Store trade is dull, but not entirely stagnant, there being a steady hand-to-mouth demand. We quote as follows: Best Refined, 1.85¢ @ 2.1¢ at mill, and 2.2¢ @ 2.3¢ from store; Common Iron, 1.7¢ @ 1.75¢ at mill, and 2¢

@ 2.1¢ from store. Structural and Shaped Iron .- On Saturday last the bids were opened for the material for a mile and a quarter of elevated railroad in Hoboken, and the Passaic Rolling Mill Company, of Paterson, secured the contract, which calls for some 2500 tons of Iron, consisting mainly of Angles and Channels. The prices at which this contract has been taken have not been made public, but it is understood that they were quite low, in accordance with the general situation of the

2.6¢; Refined, 2.75¢; Shell, 3¢ @ 3¼¢; Flange, 4¢ @ 4¼¢; Extra Flange, 4½¢

sheet Iron .- There is no change to note have been able to effect a few sales. At a in the demand for Heavy Sheets, which is fair. We quote, 3¢@ 3.2¢ for Nos. 10 to 16. thing there can be no disappointment if but There is very little doing in lighter sizes. little business turns up. The outlook for the For quotations, see our New York Wholesale Price List.

Steel .- The demand is still slow and business disappointing. There is no change in with a concession to large buyers; Crucible Machinery, 61/2 \$\phi\$ @ 7\$; Bessemer and Open-34¢@ 356¢; Sleigh-shoe, 236; Boiler Plates,

Wire Rods.—We hear of no large trans-

month or two will probably witness several fortnight ago. If prices can be maintained where they are for a few weeks, it is not expected that there will be any trouble in sustaining them throughout 1884.

Old Material,-We hear of no transactions in Wrought Scrap, but \$23 is offered for Selected Yard. Quotations are \$23 @ H. \$24. In Old Rails nothing has been done. Buyers offer \$21.50, while sellers ask \$22 @ \$22.50, and refuse to sell at less.

#### TRANSACTIONS ON THE NEW YORK METAL EXCHANGE.

We are reported the following transactions as having taken place on the floor of the Exchange from Wednesday noon of last week to Wednesday noon of this week:

WEDNESDAY, December 19.-Second Call No transactions. THURSDAY, December 20.

10 tons Straits Tin, Mar.....  $.183_{4}$   $.183_{4}$ 10 " " SATURDAY, December 22. Monday, December 24. Exchange closed.

Wednesday, December 26.—First call. No transactions. The sales reported above aggregate 85 tons of Tin at 18.6¢ @ 19¢. There were no trans-

actions in Pig Iron. For spot lots, \$20 @

Tuesday, December 25.

Exchange closed.

\$21 asked.

#### METALS.

Copper.-The market since our last report has been quiet, but firm, sales of Lake Superior not exceeding 150,000 fb at  $15\phi$ , which is the closing figure, while other brands remain at 14¢ @ 1436¢, ordinary, and 1456¢ @ 1434¢, Arizona. London, yesterday, gave way further with Best Selected, which declined another 30/, and came £64, while Chili Bars remained £57. 10/. Since then we receive the ensuing cablegram: "Marwe receive the ensuing cablegram: "Market not so steady and prices continue to decline. Best Selected, £63.10/@£64.10/, and Chili Bars, £56.10/@£57.10/." By mail we receive the ensuing from Messrs. W. T. Sargant & Sons, London, December 6: "We have still to report the anomalous position of sulpdid rate of consumption years moder. a splendid rate of consumption, very moderreserve stocks, and a further decline in the market rate. Deliveries for the first II months of this year are returned as 87,005 tons, against 77,376 tons for the same period It is certain that the production of Copper from poor ores, unfavorably situated for low freights, must considerably diminish at present rates, which must be pronounced exceptionally low." Manufactures may be quoted as under: Bottoms, 24¢; Braziers, 24¢; Sheathing, 22¢, and Bolt Copper, 24¢.

Tin .- London cabled last night a little better for Straits Tin, say, £84, spot, cash, but this has not benefited our market materially, for we cannot quote large lines any terially, for we cannot quote large lines any higher than 18 %\$\phi\$, and jobbing lots 18 \(\lambda\phi\), while Lamb and Flag are nominally quoted 20\$\phi\$ @ 21\$\phi\$. The Billiton Tin sale, on the 22d inst., of about 10,000 piculs, averaged 56.15 guilders & picul, the parity of which is £83.5/, cost and freight, per steamer, via Holland. The previous sale of October 20 averaged 63.75, equal to £94. 10/ October 20 averaged 63.75, equal to £94.70/. We receive this afternoon the following cablegram from London: "Market weaker and lower. Straits Ingot, spot, £82. 10/@ £83. 10/ and futures, £83. 10/@ £84.5/. Messrs. W. T. Sargant & Sons, London, December 6, express themselves as follows: "Taking into account the ruinous state of the Complex prince, which still are a source. the Cornish mines, which still are a source of supply to the extent of over 9000 tons per annum, and how easily it might happen, from drought or some other cause that the Straits supplies should diminish in-Straight, Square Point, 2, 3½, 3, 3½, 4, 4½, 11.07 Straig kef has been very quiet indeed, while in Wales makers manifest a strong belief in the future. We quote to day: Charcoal Bright, large lines, ordinary brands, \$\beta\$ box, \$\\$5.50 @ \\$5.75; do. Ternes, \\$5 @ \\$5.25; Coke Tin, \\$4.90 @ \\$5.70, and do. Ternes, \\$4.75. From Liverpool Coke is cabled 15/9 @ 16/, and Charcoal 18/6 @ 19/6. From London we are informed that Tin Plates are irregulated that the Charles are irregulated to the company of the company Shipments of Tin Plates from England the United States during the first 11 months have been 201,760 tons, against 199,826 last year, and 160,940 in 1881; to

EXP	ORTS
Dutch West Indies.	Central America.
Quan. Val. tlm., gals4432 472 ff. iron, pkgs. 3 70 ew. mach., cs 8 180 fach'y., pkgs 4 230 Copenhagen.	Quan. Val. Mf. iron, pkgs 125 \$856 Petm., gals12,708 1,848 Cutlery, pkgs. 2 58 Mach'y, pkgs. 30 1,350 Sew. ma., cs. 3 95
ldw., pkgs 6 191 locks, case 1 61	Hdw., pkgs 24 519 Revolvers, cse 1 70 Whis. & axles,
Christiania.         Idw., cs	pkgs 3 26 Anchors 2 25 Cagliari,
Winga. tlm., gals.144,428 10,000	Ptlm., gals.146,344 12,100 San Domingo.
g. imp., pkgs 11 96 tlm., gals 451 71	Ptlm., gals10,810 1,476 Hdw., pkgs 56 887 Cutlery, case. 6 188

230 825 36 160 Scale.
Zinc, cask...
Mach'y, pkgs.
Copper, cs...
Spikes, kegs...
Mf. iron, pkgs
Pumps, pkgs.
Clocks, box...
Nails, kegs...
Lead, pigs...
Sew. ma, cs... Nails, bxs. ... Scales Sew. ma., cse. Hdw., pkgs... Iron tank.... Antwerp. 313 Antwerp.
Sew. mchs.,cs. 101 2,220
Iron drums... 267 2,670
Hdw., cs.... 49 678
Mach'y, pkgs. 10 1,000
Ptlm., gals,359,059 33,213 Mexico. Cutlery, cs... 2 Mf. iron, pkgs 9 Ag. imp.,pkgs 4 Ptlm., gals. 13,900 Uddevalla. Sew. ma., ese. 1 Hamburg. Knit. mach.cs. 25 2,775 Hdw., pkgs... 76 2,856 Copper, cakes 32 627 Ag. imp., pkgs 9 160 Met.chains,cse 1 250 Mf. fron, pkgs 2 325 Sew. ma., cs. 2182 46,365 Mach'v. pkgs 31 7,834 1,291 325 605 406 6,017 Sew. ma., cs. . 2182 Mach'y, pkgs. 31 Clocks, bxs. . . 149 Pumps, pkgs. 3 2,534 2,370 114 Nails, kegs. . 125
Cartridges, cs. 14
Pumps, pkgs. 5
Sew. ma., cs. 296
Carbines, cs. 13
Nails, cs. . . 12
Valves, case. 1 Bremen.

| Carrons | September | Septem Mach'y, pkgs. 6
Ag. imp., pkgs 6
Tacks, cs... 3
Pumps, pkgs.. 4
Hdw., pkgs... 55
Mf. iron, pkgs 4 Rotterdam. Pasages. 144 Ptlm., gals.144,718 12,818 Mach'y, pkgs.

Nails, kegs.... Cartridges, cs Revolvers, cs. Boiler... Rifles, cs....

Saws, cs..... Iron rails.... Stamp'd ware,

Mf. iron, pkgs.

Scales, cs. .. Hdw., pkgs.

Sew. ma., cs.

Sew. ma., cs. . 4

Bells, case... 1
Ptlm., gals. 12,000
Mach'y, pkgs. 165
Nails, kegs... 288
Nails, cs.... 4
Ag. imp., pkgs... 2

Naptes.

610

| Gibraltar. | Cadiz. | Ptlm., gals..68,710 | 7,558 | Hdw., pkgs... 15 | 190 | Ptlm., gals..30,000 | 2,800 | ### Print, gais ... 30,000

### Brazil.

Mf. iron, pkgs 162

Hdw., pkgs ... 437

Clocks, pkgs ... 120

Tacks, case ... 12

Nails, "kegs ... 290

Cartridges ... 292 Liverpool.

Iron rollers, es. 88 3,545
Copper, bars. 892 30,179
Hdw., pkgs. 105 3,648
Mf. iron, pkgs 12 286
Ptlm., gals.814,313 71,900 1 20 6 213 5 4,240 21 300 1 2,900 21 791 2 100 45 8,665 1 177 741 9,035 Cop. mat. bgs8529 54,500 cs. 66
Knit. pins, cs. 2 598 Ptlm., gals. 59,964
Eyelets, cs. 3 840
Clocks, pkgs. 732 17,413
Rifles, cs. 10 1,962
Pistols, cs. 3 805
Pistols, cs. 3 805
Ag. imp., pkgs 61 1,907
Pumps, pkgs. 8 473
Arms, case. 1 135
Bristol.

Sew. mch. oil, 66
Cs. dew. mch. oil, 66
Cs. dew. mch. oil, 67
Cutlery, cs. 71
Cutlery, cs. 71
Cutlery, cs. 71
Firearms, cs. 14
Ag. imp., pkgs 61
Hp. iron, bdis. 5
Porto Riese

Bristol. Ptlm., gals.519,695 48,810 Glasgow. Mach'y, pkgs. 15 Iron rolls, cs. 5 Nails, bxs. 200 Ag, imp., pkgs 6 Hdw., pkgs. 5 Mf, iron, pkgs 5 Sew. ma., cs. 15 246 518 600 696 888 42 300 Exmouth. Ptlm. gals. 114,556 9,619

London. London.

ocks, bxs... 92 1,848
lw., pkgs... 28 384
r wheels... 91 458
dlets, cs... 3 130
ach'y, pkgs. 8 987 Hdw., pkgs... Car wheels... Bullets, cs.... Mach'y, pkgs. Hull

Sew. una., cs. 42
Unised Stares of Lombia.

Hdw., pkgs. 154
Mf. iron, pkgs. 230
Sew. ma., cs. 93
Cutlery, pkgs. 25
Shot, bags. 25
Pumps. pkgs. 12
Scales, cs. 16
Steel, bdls. 4
Wire gds, case 1
Iron, bdls. 11
Rifles, cs. 8
Carbines, cs. 2
Needles, pks. 2 Ptlun., gals. 393,936 32,751
Mach'y, pkgs. 9 583
Ag. imp., pkgs 7 302
Clocks, es. 41 881
Pumps, es. 2 62
Hdw., pkgs 18 462
Bells, cs. 2 32 Mach'y, pkgs 9
Ag, imp., pkgs 7
Clocks, cs. . . . 41
Pumps, cs. . 2
Hdw., pkgs . . 18
Bells, cs. . . . 2 Corunna. Ptlm., gals.141,420 14,150 British West Indies. Y. m. sheathing, cs..... Cutlery, case. Sew. ma., cs... Clooks, box...

Firearms, cse. Qui'sil'r, fisks. Nails, kegs... Cartridges, cs Pistols, case.. Revolvers, cs. Roiler

Ptlm., gals. ..4000 520
Mach'y, pkgs. 6 500
Canada.
Antimony.cks 4 229
New Brunswick.
Ptlm., gals. ..25,000 2,500
British Honduras.
Hdw., pkgs. .. 23 345
Nails, kegs. .. 86 250
Pumps, pkgs. .. 4155
Nails, kegs. .. 86 250
Pumps, pkgs. .. 3 34
Mf. iron, pkgs 677 8,169
Ptlm., gals. ...2731 381
Scales, cs. .. 2 13
Sew. mch., cs. 9 125
Ag. imp., pkgs 4 45
Cuttery, cs. 8 125
Guttery, cs. 8 125
French West Indics.

Nandsvich Islands.
Clocks, box. .. 1 1, 51,58
Ag. imp., pkgs. .. 473, 52,69
Mch'y, pkgs. .. 17 6,610
H. shoes, kegs 182 890
Screws, cs. .. 12 310
Trieste.
Ptlm., gals. ..263,000 32,850
Japan.
Cartridges, cs. 7 350
Firearms, cs. .. 2 155
French West Indics.

 Cubs.
 Files.
 30

 Mach'y, pkgs.
 31
 827
 Saws, cs.
 2

 Nails, kegs.
 637
 1,742
 Ag imp., pkgs
 15

 Rivets, kegs.
 3
 27
 Steel, 5xs.
 19

 Ptlm., gals. 178,530
 17,977
 Tacks, cs.
 11

 Pins, cs.
 2
 105
 Cutlery, cs.
 3

 Tin, cs.
 2
 26
 Iron safe
 1

 Scales
 3
 3
 3
 3

#### IMPORTS

Of Hardware, Iron, Steel and Metals into the Port of New York, for the Week ending Dec. 26, 1883. Hardware.

Baldwin Bros. & Co.
Gun barrels, cs., 17
Belcher H. L.
Files, case, 1
Boker Hermann & Co.
Hdw., cutlery and
guns, pkgs., 71
Donnell J. F. & Co.
Ironware, bdls., 2
Field Alfred & Co.
Mdse., cs., 20
Gerdon Otto Mdse., cs., 20
Gerdon Otto
Pkgs., 213
Lamarche L. & Co.
Gun barrels, cs., 10
Pomares & Cushman, Pomares & Cushman,
Pat. scrap mach., 1
Putney D.
Gun barrels, cs., 7
Ward Alsine
Mdse, cs., 4
Wiebusch, Hilger & Co.
Hdw. and cutlery,
pkgs., 31
Winchester Arms Co.
Rifles, cs., 50
Order,
Cutlery, cs., 2 Iron. Baring Bros. & Co. Pig, tons, 290 Wire rods, coils, 10,

Bundles, 2200 Bars, 3570 Pig, pcs., 347 Crocker Bros. Crocker Bros.
Pig. tons. 200
Lang W. Bailey,
Bundles, 40
Bars, 262
Lee James & Co.
Pig. tons, 200
Lundberg Gust,
Bars, 526
Naylor & Co. 6,017 3,000 100 49 206 59 Bars, 622 Wire rods Wire rods, pkgs., 22
Pomares & Cushman,
Old rails, tons, 41
Stetson Geo. M. & Co.
Pig. tons, 425
Tillotson L. G. & Co.
Mise., pkgs., 24
Williamson Jas. & Co.
Pig. tons, 300
Order,
Order,
Order,
Order,
Swedish rivet rods
coils, 2707 1,244 7,323 2,481 300 816 460 220 1,665

Bundles, 862 Scrap, kg., 568,115 Rails, 6796 Fish plates, bdls., 93 Spiegel, tons, 562 Scrap, tons, 200 Steel. Cases, 31 Bundle, 1 Brown Bros. & Co Bessemer me Bessemer meta coils, 612 Moodie E. R. & Co. Sheets, 1182 Plock & Co. Tires, 86 Wagner W. F. & Co. Bundles, 59 Bars. 19 Bars, 13 Cases, 2 ler, Bands, 421 Spring steel, tons, 1501/2 Strips, cks., 20 Metals.

Metals.

Baring Bros. & Co.
Spelter, plates 12,416
Bond, Parsons & Co.
Tin plates, bxs., 1540
Bank of Montreal,
Tin plates, bxs., 634
Bruce & Cook,
Tin plates, bxs., 3106
Cadenas & Co.
Old copper, pkgs., 2
Dickerson, Van Dusen & Co. Tin plates, bxs., 901 Donnell J. F. & Co. Metalware, cs., 6 Drexel, Morgan & Co Tin plates, bxs., 3 Taggers, bxs., 398 te Emerson. Mdse., cs., 10 ance & Grosje Lalan Lalance & Grosjean, Tin plates, bxs., 234 Phelps, Dodge & Co. Tin plates, bxs., 1816 Witteman Bros. Metallic caps, cs., 11 Order.

Tin plts., bxs., 12,781 Tin ingots, 55 Black taggers, bxs., Old yellow metal, lot

#### COAL

No arrangement has yet been made for six days' continuous stoppage at the mines, although Mr. Gowen, of the Reading, was in the city yesterday with reference to this subject, and there is some doubt whether the plan can be carried through. The Anthracite trade is very dull, there being nothing to sell—i. e., immediately accessible—and no one to buy, at the end of things, as it were. one to buy, at the end of things, as it were. Current prices are altogether nominal, but are unchanged, as follows: Lehigh, \$4.25 alongside, and standard brands, \$4.40; Scranton and like descriptions, \$3.80 @ \$3.90, alongside, for Broken; Egg, \$3.85 @ \$3.95; Stove, \$4.25 @ \$4.35; Pea and Dust, \$2.50 @ \$2.85; Dust, \$1.75 @ \$2, f.o.b.

The Pottsville Miner's Journal says: "The condition of the trade is about the same as

condition of the trade is about the same as noted last week, with the exception of an increased demand for Lump and Steamboat sizes for furnace use. The Pig-Iron makers, fearing that a contingency might arise to cut off their supplies here, rushed in their orders in such quantity that it was found impossible to meet them last week with the decreased output. The Reading Company, in order to accommodate their customers, had to cut off the supply of these sizes from the usual railroad supply and use Broken Coal. The total amount of Anthracite mined thus far in the year 1883 is 30,190,528 tons, compared with 27,867,537 tons for the same period last year.

Bituminous Coal continues much depressed.

	Pkges.	Value.
Antimony	54	\$3,001
Brass goods	32	2,226
Bismuth	7	3,611
Bronzes	33	3,131
Chains and anchors	29	1.091
Clocks		9,982
Copper		416
Cutlery		32,889
Gas fixtures	1	205
Guns	170	29,045
Hardware		1.237
Iron, pig, tons		67,361
Iron, sheet, tons		3,663
Iron, other, tons	1,411	32,506
Machinery		18,990
Metal goods	855	25,458
Nails	252	373
Needles		4.753
Nickel.		4,909
Old metal		1.814
Pins.		835
Platina		9,886
Plated ware	5	418
Plumbago		22,205
Saddlery	147	1.242
Steel	33,532	57.485
Steel blooms	207	432
Silverware		
		1,099
Tin, boxes. Tin, slabs, 1,963 slabs	104,360	184,257
Wire	156	43,650
		4,847
Zinc, Ibs.	11,118	461
Zinc oxide	230	1.162

The importations of metals and hardware compare with previous dates as follows

Cutlery, pkgs Hardware, pkgs Iron, R. R., bars	For the week. 106 21		time 1882 7,289 1,247
Lead, pigs Steel, pkgs Tin, bxs Tin slabs, lbs	33,532 31,956	12,913 2,608,272 2,113,965 24,210,125	30,461 1,967,724 2,169,686 21,706,538

A large amount of Iron has been sold for feeling prevails than at the opening of the next year's delivery, and none of the compresent month. Production, both of the raw panies are heavily loaded with stock, so that there will be no necessity for forcing sales in order to realize cash, as was so frequently the case five or six years ago. At the same time, it must be conceded that the next 30 days will be a trying time to sellers, as condays will be a trying time to selers, as con-sumption will probably not be more than from a third to a half, as compared with the output at furnaces, and sales cannot be urged without weakening prices. At present, however, sellers seem to be quite prepared for a temporary inactivity, and there is a good deal of confidence as regards the future. What the demand actually will 1884 is a matter of some uncertainty, but that prices cannot be much watching the market very carefully, and, if stocks begin to accumulate, the output will doubtless be decreased in propor-tion. It is said that Pig Iron cannot be made to sell at less than to-day's quotations, and, as none of the producers are disposed to pile up stocks, there is no alternative but to maintain prices or "blow out" more furnaces. Some companies have made large sales for next year's deliveries, others have had a few good inquiries for quotations, and it is the impression that buying will become very general within the next 15 or 20 days. Prices are fairly steady, but in some instances concessions were made when the sale was for 1000-ton lots and upward. In the majority of cases, however, holders have shown considerable firmness, and those who are waiting for lower prices seem to meet with very little encouragement, although in times like these it is impossible to predict with any certainty what turn the market may take. In the meantime No. 1 Foundry is quoted at prices varying from \$20 to \$22; No. 2 at \$19 @ \$19.50, and Mill Irons at \$18 @ \$20, all delivered at tide, price according to brand and quantity.

Foreign Iron.-There is more inquiry for Bessemer, and besides one lot of 5000 tons sold at \$20, for shipment to New York, additional quantities are under negotiation at \$20.25 asked. Spiegeleisen is also in somewhat active demand, with \$29 to \$29.50 asked for 20%, according to port of delivery. Prospects are quite favorable, and it is expected that several lots will be taken before the close of the year.

Bar Iron.-The demand has been more active than was expected, and some mills were kept on full time nearly all last week, although they had intended to shut down two or three days earlier. Some large concerns announce that they will not start up again until business can be had on more remunerative terms than are obtainable to-day. although that does not necessarily involve any advance in quoted rates. It does mean, however, that Bars cannot be made to sell at less than 2¢, although that is just what has been done for some weeks past. The nominal rate is now 2¢ \$\mathbb{H}\$ lb, and those who make strictly first-class Refined Iron cannot afford to cut prices to 1.9¢ or less, which appears to be about all that buyers of large lots are inclined to bid. Manufacturers say that this difference of \$2 or \$3 \$7 ton will have to be overcome before they start up again, so that the market will probably be fairly tested within the next 30 days. There is a good deal of inquiry for January and February deliveries, but as yet nothing of importance has been closed, bids being too to attract serious attention.

Plate and Tank Iron.—There has been more inquiry than usual, and in some cases very desirable orders have been entered at firm quotations. The demand is evidently pretty well up to the capacity of the mills, and while the owners are all anxious to keep full of work, prices appear to have touched bottom, and as compared with the very low figures accepted two or three weeks ago, there is probably some little improvement to figures accepted two or three weeks ago, there is probably some little improvement to be seen. Sales in the aggregate are quite be senson, and if the demand continues as at present some of the mills will begin to feel crowded by the time they are the senson, and if the demand continues as at present some of the mills will begin to feel crowded by the time they are

Structural Iron.—Some few orders have been placed, but nothing of special importance, and the general position is unchanged. It is expected that a good deal of work will be placed as the special in the special of the be placed on the market before spring, but, in the meantime, orders are sharply com-peted for, very few mills having worl enough to enable them to run to their ful Prices are about as last quoted 2.: 2.25¢ @ 2.3¢ for Angles; 2.3¢ @ 4¢ for Bridge Plates; 2.75¢ for T's, and 5¢ for Beams and Channels.

3.5¢ for Beams and Channels.

Sheet Iron.—Demand, as may be expected at this season, is very limited, and only small lots are called for at about the following prices, viz.

Common Sheets, No. 28	
Common Sheets, Nos. 26 and 27	
Common Sheets, Nos. 21 to 25	
Common Sheets, Nos. 18 to 20	
Best Refined, 14 % advance on the ab	
Best Bloom Sheets, Nos. 20 to 28	
Best Bloom Sheets, Nos. 22 to 25	
Best Bloom Sheets, Nos. 16 to 21	
Common Red Plates, 8-16 to 16	
Blue Annealed	
Best Bloom, Galvanized, discount	
Second quality, discount	
Common	

Steel Rails.-There is not much change to report in this department, although the feeling seems to be improving and prices are maintained with increasing firmness With the exception of January and Febru ary, the leading concerns have their capacity pretty well engaged up to midsummer, and it is quite likely that the demand for small will enable them to cover the bare spot as they present themselves. At any rate, there is manifestly less disposition to force sales, and anything to be taken at less than \$35 at mill must be very desirable as to size order, time of delivery and terms of settle-

#### PITTSBURGH.

Office of The Iron Age, 77 Fourth Avenue, Pittsburgh, Pa., Dec. 24, 1883.

There has been but little change in the general Iron situation during the past week; it is neither better nor worse. Business is duli, but not much more so than usual at

but few exceptions, are in a good position. this time, and if anything a more hopeful article and products, has been materially Stocks, both in first and second hands, are down lower than ordinarily, and an increased demand is confidently looked for about the middle of January. Our manufacturers generally are in much better spirits, calculating upon at least an average spring business, and there is no good reason apparent at present why their expectations should not be realized.

If this section of the country, by which we mean Western Pennsylvania, Eastern Ohio and Western Virginia, can be taken as an index of railroad building, 1884 will exceed that of 1883. In addition to the numerous roads already under contract and in appears to be pretty well settled. Producers actual process of construction, there are are watching the market very carefully, quite a number under negotiation, some of which will be placed under contract early the coming spring. According to present indications, Pittsburgh is destined to be a great railroad center within a few years, all the large railroad corporations being anxious to secure connections with Pittsburgh.

Pig Iron.—The situation remains un-changed; dullness is still the order of the day, and no improvement is looked for until the middle of next month, and no particular activity can reasonably be expected this side of February. Production is still being reduced, furnaces continue to blow out, stocks, both in first and second hands, are lower than they have been for several years, and with an increased demand the market will harden, although no advance is looked for soon, in view of the very unremunerative condition of the market for the products. It is admitted on all hands that there is very little margin for profit at present prices, and furnacemen say that it is better to do nothing than to work for nothing or at a loss; hence, the unremunerative condition of the market is bringing about its own cure-

	reduced production.			
		\$20.00 @	\$21.00, 4	mos.
	No. 2 44	18.50 @	19.50, 4	0.0
	Neutral Gray Forge	17.00 @	18.00, 4	6.6
	All-Ore Mill	18.50 @	19.50, 4	6.6
Ì	Silvery Iron	18.00 @	18.50, 4	6.6
	White and Mottled	16.00 @	16.50, 4	66 0
	Bessemer Iron	20.50 @	21.50, 4	64
	M. A FA			

Muck Bar .- There is nothing doing; no sales reported for a couple of months or more. and we quote, nominally, at \$32, it is offered at the price quoted and might be bought for less The mills are well stocked; some of them have been piling up for some time past.

Manufactured Iron.—Trade is very quiet; some of the mills have stopped and others will in all probability do likewise within the next week or two. It is customary with nearly all our manufacturers to take stock and all our manufacturers. to take stock and make repairs during the first half of January, and, while an in-creased demand is looked for during the last half, it is not expected that there will be any particular activity before February,

Wrought-Iron Pipe -The new price list, which is an advance of about 20 % on the old one, affords satisfaction to manufacturers, and it is believed that it will be adhered to. There was little or no money made at the old list, and the new one affords begin to feel crowded by the time they are ready to start up again. For small lots quotations are about as follows: Boat Plate, 2.3¢ (2.35¢; Tank Iron, 2.35¢ @ 2.4¢; Shell, 2.85¢ @ 3¢; Flange, 3.85¢ @ 4¢; Fire-Box, about 5¢.

Steel Rails.—Heavy sections for near-by delibery are still quoted at \$35, cash delivery are still quoted at \$35, cash delivery are still every be every with every back every every are still every be avery be avery be avery and every are still every be avery and avery be avery be avery be avery be avery be avery be avery and avery be avery be avery be avery be avery be avery be aver 13 % in labor, it is understood, will run all winter. The Rail department of the Pittsburgh Bessemer Works has been idle for several weeks, and it is not known when it pittsburgh Bessemer Works has been idle for several weeks, and it is not known when it fered. We hear that some of the mills will be started up.

out brokers say they can get no standard grades of Steel we continue the following grads below \$24.

Railway Track Supplies. - Railway pikes are still quoted at 2.5 % (2.6 %, 30) ys: Splice Bars, 1.75 % (0.1.85 %; and Bolts, 2.75 % (0.2.85 %) with square and of 3.1¢ with hexagon nuts.

Steel.—Bessemer Merchant Steel con-tinues dull, with but little of improvement expected for several weeks to come. Prices remain unchanged. Best brands Refined Cast Steel, 11¢ @ 12¢; do. Crucible Machinery,  $6\frac{1}{2}\phi$  @  $7\phi$ ; Bessemer and Open-Hearth do.,  $4\frac{1}{2}\phi$  @  $5\phi$ ; Steel Boiler Plate,  $6\phi$  @  $6\frac{1}{2}\phi$ .

Scrap.—There is so little doing that it is difficult to give quotations. No. 1 Wrought Scrap, \$20, net ton; Selected Railroad Shop Scrap, \$22 @ \$23; Old Car Axles, \$30 @ \$31; Wrought Turnings, \$16 @ \$18; Old Car Wheels, \$18.50 @ \$19, gross; Cast Bor-\$13 @ \$14. ke — Trade continues slow, in sym

pathy with the depressed condition of the Iron business, and production has been further curtailed in consequence. Prices remain unchanged at \$10 P ton, free on cars

Window Glass .- The strike still continnes, although efforts are in progress with a view to bringing it to an early termination. Manufacturers are still supplying their customers as best they can with Eastern and imported Glass.

#### CHICAGO.

Office of The Iron Age, 36 and 38 Clark St., Cor. Lake St., Cutcago, Dec. 24, 1883. Hardware.—A better market prevailed ast week for the different lines of Hard-ware than for several weeks previous. Or-

for holiday goods were particularly principally for the purpose of filling up broken stocks of the most saleable articles Business outside of this temporary demand has assumed a quiet aspect. In this particular jobbers are not displeased, as most of them are busily engaged in taking stock and closing up the year's business, the aggregate of which has been tolerably satisfactory. There has been a heavy trade doing in Barb Wire recently. The consumers are placing orders in anticipation of higher prices. Being unable to place them for future delivthey are accumulating stock and carry ing it themselves. The probability of higher es is based upon the recent organization of the Barb-Wire Fence Company of Chi cago, with a capital of \$2,000,000, who will hold their first meeting on Thursday of this week, for the purpose of arranging the prices on Barb Wire for future consumpion, to go into effect after January 1.

Nails.—The action of the Nail Association st week has had a tendency to lessen the falling off in demand. Consumers who anticipated a rapid accumulation of stock have again altered their opinions and are buying more liberally than a week ago. The prospect that there will not be a great surplus of stock has stiffened up the price from 5¢ to 10¢ \$\mathbb{H}\$ keg, according to quantity. There are a few inquiries for carload lots, which are quoted at about \$2.50, according to the confidence of seller in their future value. Small lots are quoted at \$2.60. It is not supposed that the curtailment will have any effect upon the market beyond the time of suspension; therefore, consumers and dealers are of the opinion that the present price of Nails will vary but little between this and the time that producers will again begin manufacturing.

American Pig Iron .- Consequent upon the approach of the holidays and the close of the year, the demand for Pig Iron has been very slow. There are still a few current orders in the market, which are readily sup-plied at to-day's quotations. For future business the market seems to have a live and earnest feeling. Consumers are actively endeavoring to place orders for delivery durendeavoring to place orders for delivery dur-ing next year at prevailing figures. We hear of business in lots ranging from 5000 to 10,000 tons, at figures varying from \$1 to \$2 from prices for present delivery, without having been accepted. Furnacemen are confident that a further decline is out of the question, and stocks being scarce they would not accept offers for anything except for present use. It is claimed that the market gives evidence for a lively trade after the first of January. Many of the large con-sumers have yet to place their orders, and there being no stock in sight, and consump-tion not more than equal to the demand, the be any particular activity before February, by which time the spring trade will have opened up. Notwithstanding the many dother that have been made recently in regard to the depressed condition of the Iron trade, our manufacturers generally are in good spirits. Prices are still quoted on a basis of 1.75¢ @ 1.85¢ for Bars, 60 days, 2 % off for cash.

Nails.—According to agreement made at a meeting of the Western Nail Association last week, there will be a general shut-down on the 29th inst., to continue for six weeks, the effect of which has been to stiffen the market and arrest the downward tendency of prices. We now quote the market steady at \$2.40, 60 days, 2 % off for cash.

We continue to quote as follows for carload lots, 4 months: Lake Superior Coke at \$21 @ 32; Lake Superior Coke at \$21 @ 32; Lake Superior Robe Band, No. 1, \$23 @ 32; Southern, No. 1, at \$20.50, and No. 2 at \$21.50; Silvery Soft at \$10.50 @ \$21; Anthracite, No. 1, at \$22, and No. 2 at \$21.50; Silvery Soft at \$10.50 @ \$10.50; Silvery So market has a brighter outlook than was gen-Scotch Pig.-The demand for Scotch Pig

change to note in price. We continue to quote Glengarnock at \$28, and Summerlee at \$28.50, from which there are no concessions. Merchant Steel .- The demand for Merchant Steel has been somewhat better during the past week. There have been orders placed by agricultural manufacturers, who oil be started up.

Old Ralls.—No sales reported during the begin double-turn work after the 1st of Janast week, in the absence of which we quote the same state of war, a wary having sufficient orders placed to war, and them in this action. For best refined

is very slow, there being very little of it used at this season of the year. There is no change to note in price. We continue to

	quotations:
	Per pound.
	Best Refined Cast Tool Steel 10 @ 101/60
	Crucible Cast Machinery Steel 614 @ 6146
	Open-Hearth Machinery Steel 81/4 @ 40
	Bessemer Machinery Steel 314 @ 46
	Open-Hearth Spring Steel. 33 @ 46 Toe-Calk Steel. 34 @ 46
4	
	Sed-Shoe Steel, flat 234 @ 80
	Sled-Shoe Steel, curved 814 @ 8146
	Bessemer Steel 3 @ 314¢
	Cast Plew Steel 5 @ 5140
1	German Plow Steel 11 @ 50
1	Fire-Box and Boiler Steel 516 @ 66
1	

steel Rails. - There is very little change from last week. Mills that are willing to receive orders at present prices are pretty well filled up for the first six months of the year, and some of them longer. Some idiotic writer in the city papers has named the price of Steel Rails in Chicago at \$33, but the absurdity of this quotation makes it unnecessary to deny the report. It is known by every person interested in the Steel Rail question that Rails cannot be bought at that figure to-day. The larger manufacturers at this place refuse to acceptorders at less than \$35, and, in their present condition, are not anxious to take them evat that. The North Chicago Rolling Mill Co pany are asking \$37, which seems to be the opular price, and make concessions only when brought in competition with other manufacturers who are willing to make and deliver Raits at less figures. Still, we understand there have been heavy orders placed during the week, but we are unable to learn any of the particulars either as to price or

Old Rails .- The Old Rail market through the week has become slightly stronger.

surplus which has existed is pretty plentiful, which was somewhat surprising, taken up, and the present condition of the being near the festal season. The orders weather will not increase the quantity of for all classes of goods have been small, and stock for Chicago and Milwaukee delivery. We continue to quote \$21 @ \$22, according to quality.

Bar Iron.-The market for Bar Iron is steady and unchanged. There has been less Iron sold during the past week than the week previous, but this has not had any influence upon prices, which are firm. Best Refined Iron is quoted at \$2 @ \$2.10, from which there are concessions of 5¢ to 10¢, according to the quantity and specifications of the order. Frequent inquiries are made for Iron to be delivered after the 1st of January, and numerous orders without specifications have en placed during the week.

Norway Bars .- For foreign Bar Iron the demand continues about as heretofore, orders being placed at 4¢ rates. Stock is light, and we cannot learn of any more that will likely be brought to this market before the opening of the spring trade.

Builders' Iron.-The market for Builders' Iron is exceedingly dull, as all outdoor work has been suspended. There is not demand enough to settle the price definitely We continue to quote Tank, 2.7¢; Angles, 2.9¢; Beams, 3.6¢; Channels, 3.6¢@ 3.8¢.

Galvanized Iron. -The market for Galonsiderably better than for several weeks for the best grades of Iron. Juniata is quoted at 45 and 10% off, and Refined at 45 and 10 % off, but for other qualities pric are irregular and are made generally to suit the trade. Competition in the cheaper qualities is very strong, and concessions are made for the purpose of securing the order, almost entirely disregarding the margin for profits.

Black Sheets.-There is very little doing in the market for Black Sheet Iron. Prices continue weak and very irregular. We quote No. 24 at \$3.40, Nos. 25 and 26 at \$3.50 and No. 27 at \$3.60. For carload lots concessions are freely made from these figures, but the unsettled condition of the market makes the demand for these quantities very ex-

Scrap Iron.—There seems to be considerable Scrap Iron in the market, have their yards well filled with all of stock, which they are holding at figures considerably in excess of what furnacementare willing to pay. For No. 1 Wrought, furare willing to pay. For No. 1 Wrought, turnaces are paying \$18,50 @ \$19,50 for Chicago and Milwaukee delivery. At these figures they are able to secure all they need. The following are quoted as dealers' purchasing prices: No. 1 Wrought Scrap, where the second statement of the second seco purchasing prices: No. I Wrought Scrap, P net ton, \$17 @\$18; Cast Scrap, P net ton, \$14; No. I Stove Plate Scrap, P net ton, \$10; Wrought Turnings, P ton, \$8; Cast-Iron Borings, \$7; Old Plow Steel, \$11; Tool Steel, P net ton, \$20; Malleable Scrap,

EVERETT & Post, 156 Lake street, Chicago, report to us as follows, under date of December 22, 1883: Pig Lead.—The past week has shown some improvement in Pig Lend. The demand has been very good for spot, and January Lead sales have been made during the week at \$3.35, \$3.40 and \$3.42½ for Refined.

#### CHATTANOOGA. Office of The Iron Age, Eighth St., CHATTANOGA, Dec. 24, 1883.

As the year draws to a close heavy trade is restricted below what it was, and, at the best, this season has been dull and unsatisfac-Dealers and producers are casting up yearly balance sheets, and the result, though not indicating phenomenal gains, shows a generally satisfactory state of affairs. The disposition seems to be to go on, and, in many instances, to increase output. Better quality has resulted from close competition and small profits. Savings have probably been as large in the aggregate as when times were flush and people more extravagant. The Christmas season brings the usual bustle, and shows that everybody has som money with which to lay in materials for the holiday festivities. Seldom, if ever, has there been a more general demand for the goods sold at this season. The weather during the week has been raw and cold, alter nated with long, drizzly rains and heavy

rendering outdoor operation ticable if people were disposed to engage in

them. Pig Iron.-The output of Pig Iron in the Southern section in 1883 has been quite as large as in any year previous. The capacity of old furnaces has been, in many instances, largely increased by improved formation, better hot blast and machinery, and new furnaces have been added in Alabama, Tennessee and Virginia. Should demand spring up for it at fair prices, the four Southern Iron and Coal States would easily produce 1,000,000 tons of crude metal in a year.
Prices are what they have been for several weeks. Better times are expected soon after the opening of the new year. The same expectation was common in December, 1882, but not realized. We quote No. 1 Foundry at \$19 @ \$20; No. 2 Foundry, \$18 @ \$19; Gray Forge, \$16 @ \$19; White and Mottled, \$14 @ \$15; Car-wheel Metal, \$24 @ \$26.

Ores.—We quote 50 % Brown Hematite, & ton, \$2 @ \$2.75; Red Fossil, \$2 @ \$2.25, delivered at furnace.

Miscellaneous Articles.-Old Rails are not in large supply. Few are being raised and holders are indifferent about disposing tions within the past ton days may be of their stocks. We quote them steady at noted. Nails.—The movement of Nails has \$21 @ \$22. Wrought Scrap, \$18 @ \$22; Cast Scrap, nominal, \$11 @ \$14; Old

Merchant Iron.—Bar is dull at \$1.90 @ for carload lots; Bolts, \$3 @ \$3.20; Coal.-Fancy Lump, \$3.25: Common. 2.50; run of mine to manufacturers, \$1.50 \$1.75 at mills. Some of the mines pro

the first of the year.

Coke —We quote Furnace Coke, \$3 at
point of consumption; Foundry, 10¢ @ 12¢

bushel. Coke for furnace use will be reduced in price 20 % the first of the year.

#### LOUISVILLE.

GEO. H. HULL & Co., Commission Merchants, report to us as follows, under date of Dec. 22, 1883: The market is quiet and firm. The depressing effect occasioned by outside sellers coming into the market with inferior sellers coming into the market with inferior Irons has partially disappeared, and some sales have been made recently at prices slightly better than realized two weeks ago. We quote for cash, in round lots, as below:

FOUNDRY IRON.

Nort manging rock Charcoal	35235,000 (0)	3524.50	
Ng. I Southern Charcoal	21.50 @	22.00	
No. 1 Hanging Rock Stonecoal and	marino em		
Coke	19.50 @	21.00	
No. 1 Southern Stonecoal and Coke	19.00 @		
No. 2 Southern Stonecoal and Coke	18.00 @		
"American Scotch"	18.00 @		
Open Silver Grav	18.00 @		
Close Silver Gray	16.50 @		
MILL IRONS,			
No. 1 Charcoal	19.00 @	20.00	
No. 1 Stonecoal and Coke, Neutral.	16.50 @		
No. 9 44 14 14	15.50 @		
No. 1 " Cold-short	16.00 @	16.00	
No. 1 " Cold-short	15.00 @	16.50	
White and Mottled, Cold-short and	19.00 @	15.50	
Neutral	14 10 0	18.00	
	14.50 @	15.00	
CAR WHEEL IRONS.			
Hanging Rock, Cold-blast	80.00 @	81.00	
Warm-blast	28,90 @	24.00	
diabama and Georgia, Warm and			
Cold-blast	28.00 @	28.00	
entral Kentucky, Cold-blast	26.00 @	27.00	
A count manager i i i i i			

W. B. BELKNAP & Co., Iron and Steel anized Iron during the past week has been Merchants, Nos. 115 to 121 West Main street, unsiderably better than for several weeks report to us as follows, under date December 1. ber 22, 1883: Bar Iron is quiet, as may be expected at this season, though good-sized contracts have, in some instances, been placed at present prices for January and February deliveries. There is little hesitation in buying, for the limit of depression seems to have been reached, and the trouble is in getting mills to accept liberal orders for the future. Some are asking an advance of \$2 \$2 ton over November prices. This confidence has been brought ab so much by present demand as by a belief that the legitimate business for the new year will readily absorb the product of the mills will readily absorb the product of the mils then in operation. Three large mills on the banks of the Ohio have, within a few days, served notice that they would close down indefinitely this week, and that they would only resume when a "living price" could be realized. Buyers have been able to supply their wants so readily that ordering freely for stock was out of the question. With the excess removed we shall see a healthier state of the market, and, we trust, better bargains for all concerned. The prices made by responsible mills during the past two months have ranged lower than they did in 1879. What is ahead we do not venture to say. It is rather interesting, as venture to say. It is rather interesting, as illustrating the vanity of human prediction, to turn to the New Year circulars sent out by some of the larger concerns last January. We have two before us now, one from the East and one from the Western districts, both of similar tenor, viz., that while 1882 might have been a year of disturbing influ-ences and consequent low prices, 1883 promised better. Big harvests and a clear com-mercial sky, and, above all, the widespread conviction that prices had touched bottom, conspired to guarantee a bright future. We append the comparative prices of a few leading articles to show how near we were to

bottom then:
New York circular prices, quoted Dec. 22, 1882, when "prices were supposed to have touched bottom":
American Pig, No. 1 extra. \$25.00 @ 20.00 " No. 2 extra 27.00 @ 34.00 " No. 2 Foundry 21.00 @ 32.00 Scotch Pig. 25.00 @ 27.00 Old Rail, Tees 25.00 @ 27.00 " D. H 28.00 @ 28.50
Lead, in store. 4.75 G Tin. 2114 G. 22
New York circular prices from same parties Dec. 18, 1868, when "the outlook for various reasons indicates continued weakness":
American Pig, No. 1 extra \$20.50 @ 21.00/ 'No. 2 extra 19.00 @ 21.00 'No. 2 Foundry 18.00 @ 20.00
Scotch Pig
D. H. 23.00 @ 4.09 Lead, in store 3.80 @ 4.09 Tin 19 @ 1014

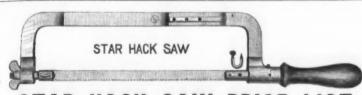
***************************************				٠.						۰			4.00	400	CAUTE
Selling price in	Lou	úsv	il	le	£	r	01	11	8	to	31	e	1		
	Dece	m	be	r	, 1	18	85	2.							
Bar Iron, card													\$2.30	0	****
No. 27 Sheet									0				4.75	0	
Burden Horse Sh	oes.			0.1		0.0					. 0		4.90	0	****
Juniata Horse Sh	065												4.75	0	
Galvanized Barb	Wir	D		0.0									8.00	@	
No. p Plain Wire.															
Common Carriag															
Screw and Strap	Hin	ge	8.						. ,				8.60	60	4.60
Cut Nails							0. 1						8.50	00	
	Dece	mi	be	F,	. 1	18	83	1.							

Come Seagner	OFTHE CONTRACTOR
December, 1883.	
Bar Iron, card	\$1.90 @
No. 27 Sheet	3.80 @
Burden Horse Shoes	4.45 @
Juniata Horse Shoes	4.15 @
Calvanized Barb Wire	5.60 @
No. p Plain Wire	3.80 @
Common Carriage Bolts	80 & 25 %
Screw and Strap Hinges	2.80 @ 8.80
Cut Nails	2.60 @
Hoops and Bands are still dull.	Bar mills

are again soliciting orders for the latter at as low figures as the association offer, and they are counted in to average up an ass Doubt of obtaining extension of the bonded period prevents any but very limited distilling, and hence dull times for coopers. It was thought earlier that possibly low-priced corn would stimulate production of whisky, as the crop in this State was immense, but the recent advances in price of the grain itself have rendered it readily marketable at profitable figures without distillation. Sheet.

—Heavy gauges are especially firm. There is no disposition to shade the current prices which, however, are, as stated once before, not relatively as low as Bar. Light gauges are been somewhat restricted by the approach of the holidays and by the fact that a touch Wheels, \$22, nominal.

Nails.—We quote at \$2.40 for large bills,
Still, the fact that for months every one mass collays, 2 % off for cash; job lots 100 @ 150
mand in small lots. The stop for January
mand in small lots. The stop for January more steadiness to the market, a feature sadly lacking the past four weeks, while there has been a scramble for bottom. With this necessary restriction it seems odd enough to hear constantly of new ma ducing coal especially suitable for Iron mills chines being added to already over-capacious have reduced their rates 20 %, to go into effect mills. Wire.—Fence Wire, one would think, is low enough to suit the most rabid granger, but in the "free district," as Judge Treat's circuit is called, a necessarily lower price is obtainable than outside. It will be well for the trade when this mixed question of the



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PRICE OF BLADES.

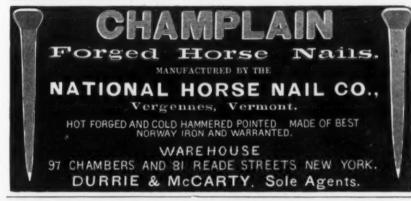
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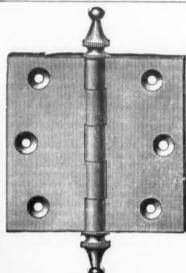
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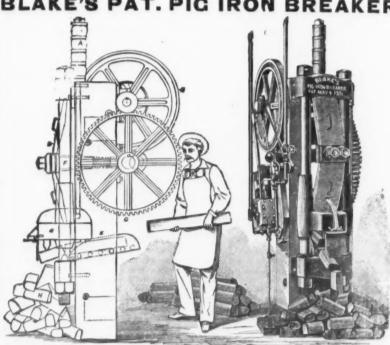
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patent is definitely determined one way or the other. General Hardware is in fair request. Some leading goods, Carriage Bolts, for example, are lower than ever known. On goods subject to open competition we look for no lower prices in January. Such as have been upheld by combination may decline according as the resolutions of the body of manufacturers or the conscience of the individual salesman may permit.

#### ST. LOUIS.

HOFFER & Co., Pig Iron and Iron Ore Merchants, 214 Pine street, report to us as follows, under date of Dec. 22, 1883: Incident to the holidays business is always dull, and this season is no exception to the rule; we therefore report trade dull, and continue our quotations of last week :

HOT BLAST CRARCOAL IRONS.
Missouri     12,50 @ 20,50       Southern     20,00 @ 22,00       Ohio     \$4,00 @ 26,00
COAL AND COKE IRONS.
Missouri     19,50 @ 20,50       Southeru     18,50 @ 19,50       Ohio     21,00 @ 26,00
MILL IRONS.
Red-short. 18,50 @ 19,50 Neutral. 17.00 @ 18,00
CAR WHEEL AND MALLEABLE IRONS.
Missouri \$19,50 @ 21.00 Southern 25,00 @ 28,00 Obio 23,00 @ 32.00

#### CINCINNATI.

DECEMBER 24, 1883.—Pig Iron.—Large consumers who draw supplies through Pig Iron merchants here are making application for round lots, 1000 to 5000 tons, for deliveries through six months. Preparations are being made to respond definitely with offers. The difference in the views of producer and con-The sumer as to prices is not a bar to transactions for immediate delivery, but threatens prolonging large contracts for supply through six months. It is supposed that very early in 1884 consumers will be prepared to make contracts for their work that will bring large orders to furnacemen at about present price Late statistics, not yet published, are in the hands of prominent producers and con-sumers in the West, that are so reliable as to have the confidence of both. Within the to have the confidence of both. Within the coming 30 days it is predicted that a very substantial basis will be found on which to build and shape the Iron business for the Quotations of sales in the past coming year. Quotations of sales in the past week: Best Hanging Rock Charcoal Foun dry, \$23; good, \$22.50; Tennessee and Alabana Charcoal Foundry, \$20 @ \$21.50; No. 2, \$1 less; Hanging Rock Coke Foundry, best, \$20 @ \$20.50; good Nos. 1 and 2, \$18.50 @ \$19.50; Virginia, Alabama and Tennessee, \$18 @ \$19; American Scotch, best, \$20 @ \$21; good, \$19.50 @ \$20; No. 2, 50¢ @ \$1

#### BALTIMORE.

W. N. WYETH, Iron and Steel Merchant, 46 and 48 South Charles street, reports us the following, under date of December 24, 1883: There has been little or no trade for the past week, at least in Iron line; hence we quote the market quiet and depressed at unchanged values: Ref. Bar Iron, 1 to 6 x % to 1 .. W 7 2

" 1 to 436 x 136 to 1?	OIL N	2	0	2 2-1	Ort.
" " 34 to 2, Round					
and Square	8 Tb	2		2 2-1	
Hoop Iron, 11/4 wide and upward	6.6	8	0	3 1-1	0¢
Band Iron, from 11/2 to 6 in. wide	6.6	236		26-1	
Horse-shoe Iron	0.0	8 2-10	00	3 8-1	Ort
Norway Nail Rods	0.5	534	60	534	0
Black Diamond Cast Steel	6.6	11	a.	12	0
Machinery Steel	0.6	436	0		0
Spring Steel	6.6	4	a	434	0
Common Horse Nails	0.6	10	(co		¢
Railroad Spikes, 516 x 9-16	6.6			2 6-10	
Perkins' Horse Shoes, Wkeg of 10	10.1			84.37	16
" Mule Shoes				5.37	16

### Our English Letter.

Review of the British Iron, Steel, Metal and Hardware Trades.

(From Our Regular Corre LONDON, ENG., Dec. 10, 1883.

THE WEEK has passed over somewhat monotonously, with scarcely any events of more than ordinary note to record. In all departments of the iron and steel trades there is increasing dullness, so far as the open markets are con-cerned, but there is still a great deal of work in course of execution, and the year will no doubt end up with nothing serious in the way ccupation. In few instances something will be left over for next year, but if common report be true the holidays will be unduly prolonged, and in the majority of instances n o life will be infused business prior to about the second Monday in January. Besides being the end of the year, the next fortnight will be virtually the close of the quarter, which is commonly a period of great quietude. The present is not likely to be any exception to the ruleindeed, all the indications are in the other direction. So soon as Christmas shall have passed, and the usual balancing-up and stock-taking completed, I think we shall hear of a number of revisions in prices and discounts, as well as sundry limitations of production which are now in embryo, and will not be formally announced until the last moment. It is impossible for selling prices to be lower than they are already in some cases, so that any further depreciation by leading producers who may be exceptionally situated for the strategy of the situation. In the United States all trade movements are conducted more rapidly advancing from 14/2½ to 44/6½, cash. On

to set in. There are always buyers at a figure. Merchants and others with dormant capital are often attracted by minimum prices, and take the risk of holding for a In the same way capitalists and engineers not infrequently keep back enter-prises of no particular pith or moment until they feel assured that the materials can be they feel assured that the materials can be acquired on the best possible terms. It is an important question, therefore, whether such a point has really been reached, or whether we are not yet at the base of the decline along which we have been traveling for so long a time past. Merchants and others will not believe that the bottom has been reached. not believe that the bottom has been reached until they witness some of the natural effects of overproduction. So long as all, or nearly the works are in operation, they will not unnaturally take the view that the business is done at a profit; consequently, there is yet a margin to be pared off before solid rock is reached. There are signs and tokens just now that we are very nearly upon this bottom level; consequently, I am not sur-prised to learn that the Indian railways and ertain other consumers are coming into the market on a somewhat large scale as buyers of steel rails, sleepers, bolts, nuts, iron and ironwork, fittings and hardware. Their purchases will not save the trades concerned, witness a fair deout on the part of young 1884. The home railways are also buying wagons and trucks pretty freely, and all the engineering concerns remain busy, particularly the locomotive and agricultural engineers, so that we are not wholly de-pressed, even if our leading metallurgical branches have an immediate future which is not bright. In addition, it does not ap-pear that we are worse off than yourselves or than our friends (and rivals) on the Continent of Europe.

YOUR TARIFF has once more formed the text for any num ber of newspaper articles in the English dailies and trades journals, besides having been a general theme of conversation in business circles. A few of the papers are rejoicing prematurely in the supposed conversion of the people of the United States from the heterodoxy of protectionism to the orthodoxy of unadulterated free trade; but the majority of the journals which are at all well informed on American politics and trade appear to look upon the possibilities of the forthcoming Congressional campaign with great doucts. The Democratic gains and control of the Speakership have been welcomed as steps in the right direction; but it is assumed (and rightly, I fancy) that the Democrats as a party dare not at present nail their flag to the free-trade mast. At the same time it is felt that the new plank is one on which they have never stood before, so that the Presidential campaign may very likely be conducted largely on tariff issues. \$21; good, \$10.50 @ \$20; No. 2, 50 # @ \$1 likely be conducted largely on tariff issues. \$20.25; good, \$19 @ \$19.50; Nos. 2 and 3, \$1 less. No report of sales of Forge or Scrap Iron. Cold Blast Charcoal Car Wheel. \$27.50 @ \$30; Warm Blast, \$24.@ \$27. Supply and demand will speedily be asserted early in the coming year. only for the simple reason that it would then be on a settled basis. It is also said that the West and South are gravitating toward a low tariff because they believe that they suffer from the existing high duties in scores of ways. Further, it is alleged that your tariff is in reality responsible for the overmmigration of which your people complain, secause it keeps wages at an artificially high standard, and so attracts the surplusage of Europe, which surplus is neither desirable nor useful in any way. A London daily nor useful in any way. A London daily paper publishes a report from Pittsburgh of interviews with glass, iron, &c., men there, in the course of which it is asserted that many of the iron manufacturers are in favor of abolishing the tariff as it stands, because it only serves to bring additional capital into the trade, promotes unnecessary competition, and maintains wages at such rates that the workmen are the parties reaping by far the largest proportion of the benefits. This is news, indeed. Are these the views of many

Pittaburgh manufacturers ? THE IRON MARKET

has once more been very quiet throughout the week, during which the changes in values have been so limited as to be scarcely worthy of special record. The open markets have presented no feature of importance, while at the works there is still a good deal of employment, although orders are being rapidly than is desirable for the period beyond the end of the year. Taken as a whole, indeed, the outlook is about as poor and devoid of hope as could be possibly imagined. The collapse of shipbuilding threatens most serious con-sequences in the North of England, and to some extent also in Scotland; while the duliness of the rail trade will not only necessitate wholesale wages revisions, but will also greatly intensify the competition of steel with iron in many departments. Already notices of forthcoming reductions are being given in the North and in Scotland, and there is every reason for assuming that the end of the year will yield a most plentiful crop of such reductions. Whether these reductions will or will not "save the trade," as the phrase goes, remains to be seen; but, as matters now stand, it seems likely that the remedy will not be reached without serious and radical disturbances of the shipments to date amount to 597,355 tons, existing state of affairs. It is pretty or 2029 tons more than 1882 to date, while g state of affairs. It is pretty indeed, that iron and steel are plain, being largely overproduced all over the world. No mere reductions of wages world. can restore the balance between supply and demand; hence we may look forward James Watson and Co. said: "The Sco

doubtedly accrue from the policy of adhering the corresponding week of last year." to old styles of working and old products. But I am not without the hope that our ironmasters are at last "waking up," especially as I happen to know that one of the oldest and best-known houses in the iron trade has at length resolved to entirely remodel its plant and works so as to enable steel as well as iron to be manufactured. It cannot be too emphatically stated, in fact, that unless we march abreast, or even ahead, of the times, our manufacturers will lose our manufacturers. ing supremacy. It may appear hard and wasteful to abandon or remodel existing plant and machinery, put down at enormous expense, but that step must be taken by all who desire to march in the van of the world's trade and commerce. The abandonment of the colliers' agitation, as promptly cabled to you at the last moment, relieved all lasses of manufacturers, as well as co ers, from the fear of abnormal prices for, or stoppage of the supply of, fuel, but it also eased quotations somewhat, and spoiled many calculations based upon the idea that a general strike was almost a certainty. Glasgow warrants have not varied to any great extent, and closed on the week at 44/ ton. Scotch makers' brands are a little easier on the week, although the public stocks are decreasing under the influence of but if their example should be imitated on anything like a large scale, we may even yet witness a fair début on the part of young ers' stocks are not being augmented. Shipments are not quite up to the mark, how-ever, and it is just possible that the year may close with a total below that of 1882. At Middlesboro' open quotations are a shade steadier, on the strength of the returns for November, which show an increase of 21,000 tons in the shipments, a smaller make, and a decrease in the total reserve stocks. At the same time G. M. B.'s are unaltered on the basis of 36/9 @ 37/ @ ton for No. 3. For West Coast hematites, mixed lots in usual proportions, still quote 46/ @ 46/6 P ton. Elsewhere crude iron is weak and nominal, with only a limited business doing in next year's deliveries, owing to the unwillingness of smelters to forestall what they regard as al most certain losses. Heavy manufactured iron is in fair output, but the demand is falling off, and the end of December will find the order books very bare, as regards shipbuilding iron in particular, unless some change should take place in the meantime The armor-plate departments at Sheffield are fully engaged, partly on American orders, and there is, as a rule, a good turnover boiler plates throughout the ironmaking stricts. Ordinary finished iron is quite districts. nominal at £7. 10/ for Staffordshire marked bars, £6. 10/ @ £6. 15/ for medium, £5. 17/6 £6. 2/6 for common, and £5. 6/3 for dinary Welsh on assorted specifications ordinary Galvanized iron and fencing wire are dull at rates which must be regarded as being nominal. In iron rails I hear of new busi-Old rails are in very limited request, and heavy wrought scrap iron is not in-quired about. Freights are easy all round at late rates, with more tonnage on offer than can be employed. Mr. W. Balchin, London, reports as follows: "Since my last, continued depression has been generally manifest in outward freights. For the Australian Colonies rates to ove port have receded 2/6 \$\tilde{\theta}\$ ton by sailing ships, while by steamers for the same description of goods freights are favorable to the shipper, 25/ and 30/ being freely quoted. At the same weight rates are taken at 2/6 over sail. These freights are likely to rule for some time, the competing line being fairly supported at moderate rates, their new boats making fair runs to the Colonies. India and China freights are fairly maintained, both by sail and steam, the supply of tonnage being regulated to the demand. The same remarks apply to the Cape Colonies, where, however, the trade is very limited. The American freight market remains as hereto-fore, with the exception of a slight fluctuation in Boston rates, caused by a competing line of steamers coming on the berth." Steel is still dall and free from other than

very moderate demand for all ordinary orts. Special brands and castings are in good request on home and export account. Bessemer concerns are pushing the sale of billets and rolled sorts with increasing persistency. A small demand only exists for old railway leaf-spring steel. Steel rails are easier at £4. 7/6 @ £4. 12/6 \$\text{P}\$ ton for ordinary 50-pound flanges and upward. In some quarters rather less is said to have quoted for deliveries over the first half of 1884.

has been quiet throughout, both as regards warrants and makers' own brands. The approaching end of the year and the closing of the shipping season has led to some con traction of the turnover, while the general outlook is not calculated to infuse either animation or confidence into the market. During the week two or three furnaces which had been under repairs have been restarted, making the number of furnaces now at work in Scotland 103 (including 9 on hematites), as against 114 this date 1882. During last week 1025 tons were taken from Connal's stores, making the aggregate now eld there 583,458 tons, as compared with 611,211 tons a year ago. Unless makers own stocks are increasing, therefore, statistical position is improving. The total the importations of Middlesboro' pig iron into Scotland have been 255,278 tons, or 30,885 tons more than in 1882 to same date. The Scotch iron market has been a degree firmer this week, without, however, much business being formally announced until the last moment. It is impossible for selling prices to be lower than they are already in some cases, so that any further depreciation by leading producers who may be exceptionally situated for working economically must needs crowd out many of the smaller firms. Few firms will be stopped voluntarily or for other than cogent reasons, but the logic of appoaching facts is likely to be stern, and so applied as to admit of no shirking. While taking this view, however, it should be borne in mind that, so soon as it is clearly understood that "hard pan" has been reached in the matter of selling prices, an influx of new orders is tolerably certain. done, and as the shipping season for the Continent is about closed, the demand for special brands is quiet. The warrant mar-

We quote G. M. B., at Glasgov Jartsherr MIDDLESBORO' PIG IRON

is in no sense changed on the week, but for the sake of preserving means of future reference I annex quotations:

The leading features of the Cleveland ironmasters' returns for November (briefly luded to in my last) are thus set forth :

MAKE OF PIG IRON. Nov. Tons. Make of Cleveland pig iron, whole district.

Make of other kinds of pig, including hematite, spiegel and basic pig iron, whole district 154,357 73,693 Total of all kinds, whole dis-228,050 No. of furnaces on Cleveland pig iron at end of month, whole district.

No. of furnaces on hematite, &c., at end of month, whole district. 84 35 Total..... 118 118

STOCKS OF PIG IRON. 1888. Tons. Oct. 31. 141,148 10,850 12,251 220,288 242,086

IPMENTS OF		oro'.	PORT	OF MI	DDLES
	188	8.	1882.	ise on 1868.	lse on 1868.
	Nov.	Oct.	Nov.	Incred Oct.,	Decree Oct.,
ipments for-	Tons.	Tons.	Tons.	Tons.	Tons.
ignipm'ts coast.	53,286	54,862	81,382		1,576
vise	47,828	44,398	85,916	3,480	
Total	*101,414	+99,260	67,298	1,854	

\* Including 4828 tons of pig iron other than Cleveland. +Including 3872 tons of pig iron other than

TIN PLATES

are quiet, and as I write leading quotations are a shade lower, probably owing to recent bear operations. For I.C. cokes 15/9 @ 16/ represent values. For odd sizes there are numerous inquiries, and sales are being effected on the basis of 16/ for usual sorts. The majority of the mills are well employed. and many of them are freely sold forward for several months ahead. For coke-tin wasters the demand is sustained, and many wasters the definite is sustained, and many good lots are changing hands at 15/3, 15/4/2 and 15/6 ? box. For charcoals there are inquiries, but few sules, the current quotations for reputable brands being 18/@ 19/ I.C. As regards ternes, there is scarcely anything new to note. The demand is almost nil just now, and prices are consequently on a descending grade.

#### FOREIGN.

FRANCE.

PRANCE.

(Moniteur des Interets Materiels.)

Paris, Dec. 10, 1883.—Metals.—Business has again become duiler, especially in the North of France, where labor troubles seem to impend and the metal market has become quite stagnant, so that last week's quotations have become nominal. We quote Copper: Chili Bars, 195.28 @ 180 francs \$\frac{1}{2}\$ too kg.; ingots and Slabs, 163.75; Best Selected, 168.75, and Pure Corocoro Ore, 162.50. Tin.—Banca, 252.50; Billiton, 247.50; Straits and Australian, 246.25, and English, 245. Lead, 29.50 @ 30.50, and Spelter, 39.75 @ 40.50. Iron.—Nothing transpires here, and even large lines of Merchant Iron cannot be sold any better than 17 francs, while at the North the asking figure is still 16.50 @ 17, without, of course, leading to any dealings. We receive the following from 8t. Dizier: "We can only repeat that orders are scarce, nobody buying beyond urgent requirements. We quote Coke Merchant, 18 @ 18.50; Mixed, 19 @ 30; Machine Mixed, 19 @ 19.50, suitable for wire drawing, and Wire Nails, second fusion, No. 3, 85." From Valenciennes we hear: "There is a persistent quietude, partially due to the nearness of the holiday season; in the new year there may be some revival provided nothing unfavorable occurs. There is a good deal of uneasness in the Iron regions of the North, where the poor state of business may compel Iron-masters to reduce wages, and this may lead to strikes, disturbing the even course of the fulfillment of contracts. This may extend to French Lorraine. We still quote, nominally, Merchant No. 2, 16.50 @ 17; Flooring, 16.50; Corners, 17, and Sheets, 30. Large Plates, 17.50 @ 18; Sheets, No. 2, 19.50 @ 20; Corrugated do., 22; No. 3, 22 @ 23, and Horseshoes, 33. Steel steady." Coal has been moderately active at well-sustained rates for Domestic; Industrial weaker.

BELGIUM.

and 26.50 for No. 4. Commercial sells for 22.50, Thin at 24.50 The import of Iron Ore into Belgi during the first 10 months has been 1,392,013 to against 1,014,357 in 1839; the export 318,317, agai 213,024. The import of Fig Iron has been 140, against 138,610, and the export 11.870, agai 16,400. The export of Sheets was 38,464, agai 16,400. The export of Sheets was 38,464, agai 169,030; of Other Finished Iron, 178,174, agai 169,030; of Nails, 6239, against 8466, and of SR Rails, 59,802, against none last year. This lat item deserves special notice, the import of SR Rails for the finished Iron, 178,174, agai to deserve special notice, the import of SR Rails for a special notice, the import of SR Rails for the finished Iron, 178,174, agai to deserve special notice, the import of SR Rails having been 741 tons, against none last year. Coal.—As quite severe winter weather, with sno has made its appearance, an active demand Coal has sprung up, without, however, leading any improvement in prices.

GERMANY.

(Borsenhalle.)

Hamburg, Dec. 12, 1883.—Iron.—The weakness in Iron seems to begin to spread from Rhenishing the Control of the Cont

#### EAST INDIES. (Hessenauer & Co.)

COLOMBO, Nov. 13, 1883.—Plumbago.—There has been a fair demand at ensuing rates, in rupees, \$\vec{g}\$ ton: Fine Lump, 130 & 135; Ordinary, 120 & 125; Chips, 60 & 65, and Dust, 40 & 45. Shipments to the United Kingdom since October 1, 13,258 cwts.: to Australia, 218, and to the United States, 10,637; together, 24,103 cwts.; against documents 6 months' sight drafts on London are taken at 1/834.

(Ker & Co.)

(Ker & Co.)

Manilla, Nov. 8, 1883.—Iron.—Walker's best Three-Crown Galvanized Roofing Iron is quoted at \$5.25, and other makes at \$4.87% @ \$5 \$9 quintal. No. 1 Govan Pig Iron 1s worth \$1.29%, and Govan Bar Iron, \$3.75 @ \$3.81% \$9 picul. Petroleum.—There is a fair demand for small lots of Petroleum at \$2.50 \$p.case, but, owing to the heavy supplies on the way, prices have a downward tendency. Coal.—A handy-sized cargo of Australian, comparatively near at hand, was sold about three weeks ago at \$4, and another, more distant, has since been placed at \$7.50 \$p\$ ton, cash, ox ship, bill of lading weight. No business has transpired in Cardiff. Exchange, \$41, 4 months' bank.

(Dummler & Co.)

(Dummler & Co.)

Batavia, Oct. 31, 18:3.—Tin.—Yesterday's sale of 21,200 Slabs, weighing 11,380 piculs, by the Billiton Company, averaged 63,74 ft. \$\pi\$ picul; the next sales of about 10,000 piculs each will come off Dec. 25. Feb. 26 and April 29. Swedish Iron is selling at 9.15 guilders, without, however, an active demand prevailing. English Iron.—Fair sales of Bars at 6.50 of Flat, Square and Round Bars, and also Hoops at 6.75, of Angle Iron at 8.25, and of Sheets at 8.75. Galvanized Corrugated Sheets have fallen to 18 guilders. English Copper Sheathing, assorted numbers selling at 66 guilders. Yellow Metal at 55; Sheet Lead at 16, while for Sheet Zinc there is not the least inquiry. Wire Natis have rather largely sold at prices ranging from 10 to 11.50. Petroleum dull, and no sales to mention; arrivals during the fortnight, 172,553 cases. Coal.—No business doing, consumers generally being well provided with both Cardiff and Australian. Exchange, 11.82½ guilders \$\pi\$ £, 6 months' sight on London.

Charles Himrod & Co., of Chicago, Ill., have established a pig-iron commission house in Detroit, in connection with and under the mangement of W. F. Jarvis, a gentleman well known to the pig-iron consumers of that city and vicinity, under the firm name of Charles Himrod & Co. They have established this house in the belief that the importance of that market justifies them in doing so.

A method for rendering buildings fireproof was tested in Chicago recently. The inventor claims for his design to confine the fire to the floor upon which it originated by covering the ceiling with thin sheet iron, and placing between it and the joist 3 or 4 inches of ashes, and above and around the space more ashes, on which the floor is laid. The test proved all that the inventor claimed for it, the joist not being damaged, though the

A rather peculiar accident, but happily attended by no loss of life, recently occurred in Hewett & McElwee's planing mill at Big Rapids, Mich. Fire broke out in the engine Rapids, Alich. Fire broke out in the engine room, and reaching the engine burnt off the belt controlling the governor, when the engine gained such motion as to result in the bursting of the fly-wheel and band-wheel. the pieces flying through the roof and in all

W W W W Ca

Out of 4792 foreign mercantile establishments in the treaty ports of China about 2300 are British. The foreign commerce of 2300 are British. The foreign commerce of the treaty ports reaches a yearly value of \$235,000,000, of which \$170,000,000 is British trade. These figures give an idea of the vast stake England has in the maintenance of uninterrupted communication threatened by the quarrel between France

The immigrant arrivals at Castle Garden during the first 11 months of this year foot up 372,477, a decrease of 63,155, compared with those of the corresponding season last year. The arrivals during the month just closed were 24,444, a decrease of 3757, compared with November, 1882.

The Turkish Sultan, through the consular representative in Philadelphia, invites proposals from American capitalists and contractors in favor of a railroad in the Turkish dominions. All supplies may be imported free of duty, and the land, funds and earnings will not be taxed.

Thirteen lockouts, each involving from 50 to 1500 men, and lasting from one to sixteen weeks, have occurred among the workmen in the coal fields of Illinois since last winter, and in only three instances did the strikers

# Wholesale Hardware Prices, December 26, 1883. (For Wholesale Metal Prices, See Page 18.)

#### HARDWARE

A Fagle Anvils American	
A Raylis.  A Raylis.  A Raylis Anvils American.  A Rayle Anvils American.  A Rayle Anvils American.  I armitage's Mouse Hole	dis 25 dis 40 di
Awis, Patent Peg. #gross 63C—dis Awis, Shouldered Brad. #gross 63C—dis Awis, Handled Brad. #gross 62 70—dis Awis, Handled Brad. #gross 62 70—dis Awis, Socket Scratch. #gr. 0 #gross—dis Brad Sets, Alken's. #gross—dis Brad Sets, Alken's. #gross for 812.0—dis Brad Sets, Stanley's Excelsion, No. 1 #goos. ods Brad Sets, Stanley's Excelsion, No. 1 #goos. ods	25&10 25&10 25&10 25&10 10&10 50&10 dis 25 &10&5
Brad Sets, Stanley's Excelsior, No. 2, \$1.80. dis Brad Sets, Stanley's Excelsior, No. 2, \$1.80. dis A xes.—Best grades. dingle Bit. 420 to 556 and under	30dino 9 30dino 9
Single Bit, beveled	dvance
Frazer's, in bulkKeg W B, 5c; Pail, W R Frazer's, in boxes	o oo ne
Beira — tand, Light Brass	18 3316 5 70&10 5
And, Extra Heavy and, White Metal. Hand, Silver Chime. Hand, Globe (Cone's Patent).  Gong, Abbe's.  Gong, Yankee.  Gong, Yankee.  Gong, Parkee.  Gong, Barbooks'.  Gong, Parkee.  Gong, Parkee.  Gong, Parkee.  Gong, Barbooks'.  Gong, Barbooks'.  Gong, Barbooks'.  Gong, Barbooks'.  Gong, Barbooks'.  Gong, Barbooks'.  Gong, Conne's.  Gong, G	208:10 9 258:10 9 208:10 9 308:10 9
Gong, Barton's dis Crank, Taylor's dis Crank, brooks' dis 400 Crank, Cone's dis 400 Crank, Cone's dis	308010 9 258010 9 8010802 9 din 10 9
Lever. Sargent's	55&10 % net 25&10 # &10&2 #
Lever Reading. dis 25&Puil, Brook's. dls 50 Puil, Western dis Call.	10&10 1 &10&2 1 25&10 1 dis 25 1
Cow, Common Wrought	208:10 9 208:10 9 108:10 9 208:10 9
Cow, Western, sargent is new list. dis coc. Cow, Kentucky "Star". dis Cow, Kentucky "argent's new list. dis coc. Cow, Dodge" Genuiue Kentucky, new list. Nos. o 1 1/2, 6 Hog } gitaco to. 0,0 8,00 ".00 5,00 3,00 2,50 5,00". Cow, Texas Star.	
Bellows. Rlacksmiths Common Biacssmiths 'Extra Pittsburgh Pattern Molders' Hand Bellows.	dia 45 % dia 25 % dia 20 %
Beiling, Rubber.	
Belting and Packing Co.  Bit Heiders.  Extension, Barber's.  Extension, Ives'.  Diagonal.  Angular.  Bilind Adjusters.  Bilind Fasceers.	dis 40 % 40&5 % dis 30 %
Blind Fasteners. # dos pairs, \$1.00 dis Fackrell's # dos pairs, \$1.00 dis Van Sand's Screw Pattern	20&10 4 8 10&2% 1 10&2 %
Merriman's	st, net ro. net ss. net
Bar bed 36 in. and larger \$2.59 Bar bed 36 in. \$2.50 Biocks. \$2.50 Penfield Block Co., I. R. and I. Strap'd. \$2.50 Penfield Block Co., U. R. and I. Strap'd. \$2.50 Penfield Block Co., W. I. C. bushed	Me net
Hicks. Penneld Block Co., I. R. and I. Strap'd Penneld Block Co., W. L. C. bushed Penneld Block Co., W. L. all steef roll'r Penneld Block Co., L. & I Sheaves Bagnall & Loud. Bagnall & Loud. Glashev Rule & Level Co.'s	118 20 % 118 40 % 118 35 % 40&10 %
Cast Iron Barrel Square, &cdis Cast Iron Shutter Boitsdis Cast Iron Chain (Sargent's list)	54&10 % 50&10 % 54&10 %
Wrought Barrel. dis Wrought Square. dis Wrought Square. dis Wrought Shutter, all Iron, Stanley's itst. dis Wrought Shutter, Brass Knob, Stanley's itst. dis Wrought Shutter, Brass Knob, Stanley's itst. dis Wrought Shurk Flush, Sargent's 18, dis Wrought Sunk Flush, Sargent's 18, dis Wrought Sunk Flush, Stanley's dis 28 Wrought Sunk Flush, Stanley's dis 26 Wrought Burk Flush, Stanley's dis 26 Carriage and Tire Common dis 2621.6 dis 26	55&10 % 50&10 % dis 40 % 55&10 % 75&10 % 118 65 % 80&20 % 70&5 % 118 70 %
R. B. & W. Carriage (old list)	
Tire, "Bay State," new list, July 2, 1881dis	16246 %
Tire, "Bay State," new list, July 2, 1881dis	16246 %
Tire, "Bay State," new list, July 2, 1881dis	16246 %
Tire. B. 8 & W. 3-15 and 34 Philadelphia list 6	1624 % its 85 % its 85 % its 50 % rock 10 % rock 1
Tire. B. 8 & W. 3-15 and 34 Philadelphia list 6	1624 % its 85 % its 85 % its 50 % rock 10 % rock 1
Tire. B. 8 & W. 3-15 and 34 Philadelphia list 6	1624 % its 85 % its 85 % its 50 % rock 10 % rock 1
Tire. B. 8 & W. 3-15 and 34 Philadelphia list 6	1624 % its 85 % its 85 % its 50 % rock 10 % rock 1
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Tire. B. 8 & W. 3-15 and 34 Philadelphia list 6	1624 % its 85 % its 85 % its 50 % rock 10 % rock 1
Tire. B. 8 & W. 3-15 and 34 Philadelphia list 6	1624 % its 85 % its 85 % its 50 % rock 10 % rock 1
Tire, "Bay State," new list, July 2, 1881dis	1624 % its 85 % its 85 % its 50 % rock 10 % rock 1

(Fo	r
Loose Joint. dis 60210 Loose Joint, Japanned dis 60210 Loose Joint, Japanned with Acorns dis 60210 Parliament Butts dis 60210 Mayer's Hinges dis 60210 Loose Pin, Acorns dis 60210	KKKK
Loose Pin, Acorns	W 26 26 26 26 26 26 26 26 26 26 26 26 26
Mayer's Hinges	**************************************
Bronzed Wrought Butts	
Gem Spring Hinges	A SET SET SET SET SET SET SET
Loose Pin. Light	*************
Blind Butts, Clark's, Nos. 1, 3, 5,	and the second
Shepard's Lull & Porter Shutter Hingesdis 70&10 % Shepard's Reversible Shutter Hingesdis 70&10 % Clark's Improved Shutter Hingesdis 70&10 %	20
256.3	
Can Upeners.—Messenger's Comet, # doz. #8.00 dla 2.5 American # gross #6.00, dla 26.5 American # gross #6.00, dla 26.90 luplex # doz #2.5 dla 20.5 Lyman's # doz #2.5 dls 20.5 No. 4, French # doz #2.25 dls 5.6 S.	
No. c, Iron Handle. # gross \$0 oc. dis 256330 5 Eure#a. # doz \$2.50 dis 10 5 Sardine Scissors. # doz \$7.00 dis x5 5 Star # doz \$7.00, dis x5 5 Sprague, No. 1, \$3.00   No. 2, \$3.25   No. 3, \$3.00   Mis 25 Sprague, No. 1, \$4.00   No. 2, \$3.25   No. 3, \$3.00   Mis 25 Sprague, No. 1, \$4.00   No. 2, \$3.25   No. 3, \$3.00   Mis 25 Sprague, No. 1, \$4.00   No. 2, \$3.25   No. 3, \$3.00   Mis 25 Sprague, No. 3, \$3.00   No. 2, \$3.25   No. 3, \$3.00	-
No. 3, \$30.00. dis 50 & 107 Universal \$\phi\$ dos \$3.00, dis 50 & 107 Domestic \$\phi\$ dos \$3.00, dis 35 \$\phi\$ Chambion. \$\phi\$ dos \$2.00, dis 40 \$\phi\$ Caps—Percussion, \$\pi\$ 1000. Hicks & Goldmarks	
Carry   Carr	
Eley's E. B.	
Colt's Pistol, in 1-to's   Si-40'   dis 10 s	
Rim dis 65&5 5 Central Fire dis 45 6 Carrens - iorse and Curry dis 4 5 Catrens - iorse and Curry dis 5 Cotton new list Aug. 83, dis 10 8 Wool, et Stretchers.	
Carrifages   Central Fire   dis 5,8 c.5	
Sargent'sdis 70&10 %	1
Trace, 016-10-2.	-
German Coll, list of Dec. 31, 1881.   dis < \$\circ \text{English Coll.}   310   54   510   56   710   56   681   600	
Jack Chain, Brass.         dis 6 (@60%) 0 %           (*)Balk.—White.         \$\psi\$ gross occ net           Red.         \$\psi\$ gross 5cc net           Slue         \$\psi\$ gross \$\psi\$, co net           White Crayons.         \$\psi\$ gross 1cc net           Chaik Lines.—See Lines.         \$\psi\$ gross 1cc net	
CB10e10. dla 65,85 \$ Socket Framing, Arlington Edge Tool Co. Socket Framing, Merell. Socket Framing, Witherby Tool Co. Socket Framing, Witherby Tool Co. Socket Firmers, Arlington Edge Tool Co. & 10 %	
Socket Firmers, Witherby 1001 CO	1
Tanged Firmers , Buck Bros (Bhank)   .5.2 to £ Clamps   .5.2 to £ Clamps   .7.2 to .7.3 to .7.4 to .	1
Iron, Adjustable, Stearns'   dis 20%10 %     Iron, Cabinet, Sargent's   dis 70%10 %     Iron, Carriage Makers', Sargent's   dis 70%10 %     Iron, Eberhard Mig. Co   dis 40% % % Saw Clamus   See Vises     Cilps, Axie   See Vises     Cilps, Axie   dis 20% % % % % % % % % % % % % % % % % % %	The second
Saw Ciamus   See Vises	011
Ale and Beer Coffee # Hills, dis of Wilson's Goard and Box. dis of Wilson's . dis sof Selson's rat. \$0.00 \$10.00 \$	CHRISTIA
Private Burgancia version vers	W. C. S. S. S. S. S. S.
Calipers. dis 6 g Dividers. dis 6 s Berris & Cali Co. 's Dividers. dis 6 6 g Berris & Cali Co. 's Dividers. dis 6 6 g Berris & Cali Co. 's Compasses and Calipers. dis 6 6 g Berris & Cali Co. 's Wing & inside or outside, dis 6 6 g Berris & Cali Co. 's Double. dis 6 6 g Berris & Cali Co. 's Calipers and Dividers. dis 2 5 g Cook's Extension. dis 2 5 g Coopers' Toels.	T I
Coopers Total Bradley's	I HOSE
## dos # ars.  ## 6 c  ## 7 c  ## 6 c  ## 7 c  ## 6 c  ## 7 c  ## 6 c  ## 6 c  ## 7 c  ## 6 c  ## 7 c  ## 6 c	Labere
Silvered Glassnet	HHAASSF
	AAPP

•	ווס וווטסס, שמ	į
) T	Wholesale Metal Prices, See Page	
5 5 5	Door Springs. Iorrey's Rod, regular size, \$2 doz., \$3dis so	C St
7.5	Door Springs	E V
4 50	No. 1, Large Japanned @ doz \$4.00)	KU
8	No 2. megrum, Japanned & dos 2.75 dis 50 & 10 % No. 3. Small, Japanned & doz 2.00 dis 50 & 10 % Star (Coil)—For Con'd, Nickel Plated, & control	TO
× 5.	No.   Large Japanned	A
200	No. 5, Medium	H Ju
200	sabin's Boss. No. 1, \$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	E H
# %	Philadelphia	Si Si Gi
5.5	Bercules	C
50 50	Rubber, complete.   \$\psi\$ dos. \$2.2c, dis 20\$ to the rules   \$\text{Hercules}\$   \$\text{Hireco}\$   \$\text{dis 40}\$   \$\text{Drawing Knives}\$   \$\text{dis 40}\$   \$\text{Drawing Knives}\$   \$\text{dis 70}\$   \$\text{Crossman's No.   } & \text{dis 60.85}\$   \$\text{Morrill}\$   \$\text{dis 70}\$   \$\text{Notices Mig. Co. } & \text{dis 15}\$   \$\text{Bradley 8}\$   \$\text{dis 35}\$   \$\text{Adjustable Handle}\$   \$\text{dis 20}\$   \$\text{Witherby Tool Co. } & \text{dis 20}\$   \$\text{Witherby Tool Co. } & \text{dis 20}\$   \$\text{Vitherby Tool Co. }   \$\text{dis 20}\$   \$\text{Vitherby Tool Co. }	COUD
N 15 M	Nobles Mfg. Co	Is
1 201 201	Adjustable Handle dis 20 Witherby Tool Co dis 70 Douglass dis 70	
× 55 %	Breast Millers Falls each, \$2.50, dis 20 greast, P. S. & W. dis 20 greast, Hotchkis'.  Breast, Hotchkis'.  Breast, Hotchkis'.  Breast, Millers Falls each, \$3.00, dis 20 greast, P. S. & W. dis 20 greast, P. S. & W. dis 20 greast, Millers Falls each, \$3.00, dis 28 great, Millers Falls, Bartheld, Moore's Triple Action.  \$1.00 dis 26 great each, \$3.00, dis 26 great each, \$3.00, dis 20 great each	H
20.00	Blacksmiths' Self-Feeding. each, \$7.50, dis 20 8 reast. P. S. & W. dis 20 810 9	H
200	Breast, Millers Falls dis 25 9	
20.00	Breast Bartholomew's each, \$2.50, dis 25% 10 Ratchet, Merrill's dis2 05	Y
4 34 34	Ratchet, Ingersoll's dis 25 Ratchet, Whitney's dis 20010 1	U
5 2	Ratchet, Moore's Triple Action	
r.	\$12.00 dis zc&10 f Wilson's Drill Stocks. dis zc&10 f Wilson's Drill Stocks. dis 10 f	L
200	Drill Chucks.  Morse's Beach Patent.  each \$7.25, dis 20 5	Si
91.0	Morse's Adjustable	
	Moproe's	Co
	National # doz. \$1.50, dis 3355 Standard # gross. \$18.00, dis 355	1
	Family (T. & S. Mfg. Co.)	Pe
	Klevator Buckets.  Mill E. Buckets, light, 354 to 10 in. (Duc's Improved)	
	Norse's Adjustable. each, \$7.00. dis 20 5 Danbury. each, \$8.00, dis 20 5 Danbury. each, \$8.00, dis 30 5 2 Monroe's. dis 50 8 40 5 2 Monroe's. dis 50 8 40 5 2 Monroe's. dis 50 8 8 40 5 2 Monroe's. dis 50 8 8 40 6 Monroe's. \$7 8 8 8 8 5 0 6 Monroe's. \$7 8 8 8 8 5 0 6 Monroe's. \$7 8 8 8 8 5 0 6 Monroe's. \$7 8 8 8 8 5 0 6 Monroe's. \$7 8 8 8 8 5 0 6 Monroe's. \$7 8 8 8 8 5 0 6 Monroe's. \$7 8 8 8 8 5 0 6 Monroe's. \$7 8 8 8 8 9 8 8 8 9 8 8 8 9 9 8 8 8 9 9 8 8 9	A
-	storehouse (Duc's Patent), 12 to 17, \$12 @ \$20, dis 10 %  Emery.—Regular numbers.	w
	Flour and F. F. For Emery Paper and Cloth see Sand Paper.	Ge
	Sauce Pans dis 50 %	Ga Ga
	inned Sauce Pans. dis 30 % Escutcheon l'ins.—Brass. dis 50 %	Ge
-	Door LockSame discounts as Door Locks	Ga Ga
	Wood. dis 25 %	Ro
	Wood   dis 2 s   Faterit   Fenn's   dis 40 s   Sohren's Patent Rubber Bail   dis 2 s   Fenn's Cork Stops   dis 30 s   Star   dis 30 s   dis	Pl
	star	Se
	West's Patent Key         dis 45 %           Ancher Lock         di 45 %           Metallic Key, Leather Lined         dis 60 %           Cork Lined         dis 60 %           Lock Lined         dis 70 %	He
0	stetatile key, Leather Lineddis 50 %	
	J. sommer's Cork Lined, 1st quality	W
	Cork Lined dis 70 5  J. Sommer's Best Block Tin Key dis 10% 10% 5  J. Sommer's Cork Lined, 1st quality.  Self-Measuring, Lane s.  J. Sommer's Cork Lined, 1st quality.  J. Sommer's Cork	Pi
	Files   Va   No. (118 30 5	Hi Ma
	Butcher's	Gr
	H Disston & Sons	Bit Co Co
	Union File Có	Co Co Be
	Heiler Bros. Morse Rasps. dis 30&10 \$ Western. dis 30&10 \$	Be
	Heller Bros.' Horse Rasps. dis 30%10 % Western. dis 10% 10% 1810 % Stubs	Cit
	Knox, 6-inch Rolls	Cle
	Eagle, 5%-inch Roll. Crown, 45c-in., \$3.50; 6-in., \$4.00; 8-in., \$6.50 each, dis 35 % Crown Jewel.	Ha Co Co
1	American, s-in., \$3; 6-in., \$3.40; 7-in., \$4.50 each, dis 35 % Domestic Fluter	Co Co W
1	Geneva Hand Fluter, White Metal & doz \$12, dis 25 \$ Crown Hand Fluter, Nos. 1, \$15; 2, \$12.50; 3, \$10.00 & doz	Pic Ta
1	Shepard Hand Fluter, No. 85per doz \$15, dis 40 5 Shepard Hand Fluter, No. 110per doz \$8.75, dis 30 5	W
-	onepard Hand Fluter, No. os	Gr. Wi
1	Buffalo	Ho
1	Crown Hand Fluter, Nos. 1, \$15, 2, \$12.50; 3, \$10.00; \$4 dos. 468.50 \$ Shepard Hand Fluter, No. 18	Au
1	Plated, Reed & Barton	Cli
1	Enterprise Mfg. Codis 20&10 %	Est Pu Vu
1	Enterprise Mfg. Co. dis 20&10 \$  Kry Pans. Burnished list as follows. dis 50&10 \$  \$0. 0 1 2 3 4 5 0 7  \$0. 0 1 2 3 4 5 0 7  \$0. 0 5	Gle A. Ch
-	Acme"dis 40&10 %	Ch F Ne
1	Marking, Chapin's dis 55&10 \$ Wire dis 55&10 \$	Bri
1	Carte	N.
1	### Nation   American	L W
1	"Diamond Gimlets dis 10&10 % Double Cut, Shepardson's dis 40&10 % Double Cut, Hartwell's dis 40&10 %	Du
1	Double Cut, Ives'	Na.
	Beel " # gro. \$12,00, dis 25 % Gi ue Pota. Tipned and Enameled dis action of the second state of the se	No Wi Du
1	Tinned and Enameled	Iro
1	Grindatone Fixtures. Sargents Patent	Ice Ice Ice
1	Family, Howe's "Eureka" dis 40 % Family, I. F. & C.'s "Handy" dis 40 % Griudatone Fixtures dis 70 % Farents Fatent dis 70 % Fatent dis 90 % Fa	Cor
1	U. M. C. B. E., 98 to	Tor
	U. M. C. P. E., 9&10. 3.10 U. M. C. P. E., 9&10. 4.00	Pac Saf
1	Eley's B. E	Arc
1	Griffin's Hack Saws and Bladesdis 20&10 %	Fan
1	Eley's P. E.  nck Faws. Griffin's Hack Saws and Blades. dis 208:10 % Hatters.—Covert's Pat. Kope. dis 50 % Covert's Horse and Cattle Ties. dis 50 % Union Pat. Kope and Web. dis 108:10 % Union Horse and Cattle Ties. dis 20 % Union Horse and Cattle Ties. dis 20 % Grammers.—Maydole's. dis 208:5 % Cheney's, new list. March, 1883. dis 208:5 % Hartford Hammer Co. S Nail Hammers. dis 20 % Hartford Machinist, Kiveting and Farrier dis 25 % Klp's.	K
1	Alammera.—Maydole's	Ebe
	Hartford Hammer Co.'s Nail Hammersdis 20 % Hartford Machinist, Riveting and Farrierdis 25 %	Am
	Kip's	Am
		Hay Tab
	Warner & Noble's         dis 10 %           Yerkes & Plumb         dis 30 %           wilkinson's Smiths'         1156 ♥ ₩ B net           Heavy Hammers and Sledges         dis 50&10 %	Car Bas Her
1	Heavy Hammers and Sledges	Doo
	tiand Caffs and Leg Froms.  Providence Tool Co., Hand Cuffs, \$1.00 \( \) doz. dis 10 \( \) Providence Tool Co., Leg Irons, \$2.00 \( \) doz. dis 10 \( \) Tower's daz \( \) ds 2\( \) S	Doo Doo Fur
1	Handles.—Door or Thumb Latches.	Fur
1	Nos	Pict
		Shu
1	Agry   Store Door Handles Suts, \$1.52   Plate. \$1.10:	Mel
1	Surface Chest	Ebe
-	Liftins. dis 60%12 %  \$\frac{1}{2}\$ \$\text{su and Pinne}\$ \$\text{dis 400% 10.5}\$ \$\text{dis 400% 10.5}\$ \$\text{doynton's Loop Saw Handles}\$ \$\text{500, dis 50.6}\$ \$\text{dis 500, dis 50.6}\$ \$dis 500, dis	Tub
-	soypton's centential case maidles 50c, dis z \$  dammer and Hatcher 670a, \$z \$ dis z \$  draf a w! 670a, \$z \$ dis z \$  draf a w! 670a, \$z \$ dis z \$  dickory Firmer Chisel, assorted, \$z gross 500  hypic Firmer Chisel, large, \$z gross 500  hypic Firmer Chisel, \$z g	Nai! Metellur
and here	Hickory Firmer Chisel, assorted, # gross \$4.50   Hickory Firmer Chisel, large, # gross	Brac
100	Apple Firmer Chisel, large, & gross 6.00 dts	Yan

15 %	"Champion" Medina Mfg. Co dis 50&10 Sterling Improved (Anti Friction)	N N N
30 %		N N N
×	Cook	K 150 150
	CronkNo. 4, \$12; No. 5, \$14.40; No. 5, \$21; dis 50 flarness Muaps. Auchor (T. & S. Mfg. Co.)	8
10 %	Henshaw's, list of 156 changed to \$14.00,	2 2 2
355	Andrews'dis so	あると
10 %	German, Sargent's new list	N M IN
10%	Covered Spring, new list, Oct., 1882dis 60&10	200
5%	EINICHCEM-	
5 %	Shingling, Nos. 1 2 3 # dox \$7,25 \$8.00 \$8.75 Claw, Nos. 1 2 3 # doz 7.75 8.40 9.25	
0 %	Shingling, Nos. 1 2 3 ¥ doz \$7.25 \$8.00 \$8.75	ı
0%	Hurd's dis 30 @ 35	ç
10 % 15 % 15 %	Shingling, Nos. 1 2 3.	
0%	Yerkes & Plumb	
0%	Lathing, Nos. 1 2 2 doz 7.52 8.00 8.50 Underhill Edge Tool Co	9.0
0%	Series & Plumb   Series   Se	
0 %	No. 1. \$11. Boston Pattern, \$14. Simmons'	- 1
0 % 0 %	Claw Nos - ras 20 dog 8 ra 0 on 0 so	
2%	*Lathing, Nos. o12 3. # doz 8.00 8.50 9.00 Broad, Nos. 12 3. # doz 9.00 10.00 12.00 14.00 Broad, Nos. 567 8. # doz 10.00 18.00 20.00 22.00 Collins 12 3. # doz 85.00 85.00 85.00 Shingling, Nos. 12 3. # doz 85.00 85.00 85.00	6
5 % 5 % 10t	Lathirg Nos. 1.2 3	
5 % iet	Peck's Champion Bladedis 30 @ 35 5	
0 %	Claw, Nos. 1 2 3	
0%	Lightning "	
8e	flinges. Gate, Western. # doz \$4.90 dis 55 5	
0 %	Gate, N. E. Reversible	100
0%	Gate, N. Y. State	The same
ks 5 %	Gate. N. Y. Stare b dox 8x ox. dix xx Gate. Automatic b dox 8x ox. dix xx Gate. Automatic b dox 8x ox. dix xx Gate. Common Sense. b dox pair 8x ox. dix xx Gate. Seymour's dix xx ox. dix x	-
5%	Rolled Plate	: 1
5%	Plate Hinges 8, 10 & 12 in., \$4.55 \$100 B (dis 10 8 "Providence" over 12 in., \$4.50 \$100 B (dis 10 8 Serew Hook and (8. 10, 12 in. \$7.00 \$100 B ).	
5年	"Providence" over 12 in. \$4.50 % 100 m 5 cms 100 % cms 100 km 40 % 10, 12 in. \$7.00 % 100 m 5 cms 100 km 11 to 36 in. \$5.75 % 100 m 5 cms 10 km 11 in. \$7.00 % 100 m 5	
0%	Screw Hook and Eye	1
0 %	11Hoen Riveted Shank # doz \$5.00. 418 so %	
の第四条	Socket	
5%	Grub Bri. dis so \$	
5%	Bird Cage, Sargent's list	
2 % 2 %	Hooks. Bird Cage, Sargent's list. dis 668:0 8 Bird Cage, Reading dis 268:0 8 Cotton Cotton. P dos 84.0, dis 26 Cotton Patented (N. Y. Mallet & Handle Wks),dis 30 8 Cotton (Humason & Beckley Mig. Co). dis 40 8 Belt. dis 468:0 8 Bench.—Hotehkiss' \$4,00 \$\tilde{9}\$ dos. dis 10 8	
3%	Beitch	
5 %	McGlil's, \$4.00 ₹ doz   dis 10 \$   Morrill's, \$9.00 ₹ doz   dis 50 \$	
× × ×	McGill's, \$1.00 \$\frac{1}{2}\$ dos. dis 10 \$\frac{1}{2}\$ Morrill's, \$2.00 \$\frac{1}{2}\$ dos \$1\$ dis 9.5 Clothes Line, Sargent's list. dis 9.5% 10 \$\frac{1}{2}\$ Clothes Line, Reading list. dis 1.5% 10 \$\frac{1}{2}\$ Ceiling, Sargent's list. dis 60\$\frac{1}{2}\$ ceiling, Sargent's list. dis 60\$\frac{1}{2}\$ dos 10.5% \$\frac{1}{2}\$ Coat and Hat, Nargent's list. dis 60\$\frac{1}{2}\$ dos 10.5% \$\frac{1}{2}\$ Wite Coat and Hat, Gem. dis 40\$\frac{1}{2}\$ dos 10.5% \$\frac{1}{2}\$ Wire Coat and Hat, Miles' dis 70\$ Picture Hooks, Brown's Pat. Solid Brass, \$4.00 \$\frac{1}{2}\$ gross. dis 25\$ dis 25\$ gross.	
5 % %	Coat and Hat, Reading	
et	Wire Coat and Hat, Miles'dis 70 % Picture Hooks, Brown's Pat. Solid Brass, \$1.00 %	1
1 %	Tassel and Picture (T. & S. Mfg. Co.)dis sof	
1 %	Wrought Staples and Hooks & Staplesdis 70&77% to 8 Wrought Staples Stapley's listdis 70&77% to 8 Wire Screw Hooks and Eyesnew list, dis 70&10&-0 Grass and Bushdis 450% 5	
2 2 2 2	Grass and Bush   dis 4465 0 %   Whiffletree—Patent   dis 45 Hooks and Eyes—Malleable Iron   dis 608 10 %   Hooks and Eyes—Brass   dis 608 10 %   dis 608 1	
et	tiorse Nalis.  Nos. 6 7 8 9 10  Ausable & B. are also also are are also also askings	
550	Mooks and Eyes—Brass.	
*	Putnam "26c 24c 22c 21c 20c 19cdis 52.7 5 Vulcan, "26c 23c 21c 20c 19c 18cdis 12/6 5	1
00	A. C., "26e 23c 21c 20c 19c 18cdis 125% Ch'mpl'in	1
**	Forged "31e 28c 26c 25c 24c 23c dls 30 % New Haven, " 31c 28c 26c 25c 24c 23cdls 30 % 10 % Bridgewater, " 24c 21c 16c 18c 17c 16cdls	1
**	A. C., " 262 21c 20c 10c 10c 10c. dis 1050 5 Ch'mpl'in Forged " 31c 28c 26c 24c 24c 23c. dis 90 5 New Haven, " 31c 28c 26c 24c 24c 23c. dis 90 5 New Haven," 31c 28c 26c 24c 24c 23c. dis 90 5 New Haven, " 31c 28c 26c 24c 24c 23c. dis 90 5 New Western 26c 29c 21c 20c 10c 18c. dis 25 N. w Western 26c 29c 21c 20c 10c 18c. dis 25 N. w Western 26c 29c 21c 20c 10c 18c. dis 10 Horse Shoe Co. Perkins' Improve. Light, Medium and Heavy. \$keg \$4.376 Walker's Forged, Light, Med. or Heavy. \$keg \$4.376 Mule Shoes. \$keg \$5.376 Dunning's Steel. \$keg \$5.376 Dunning's Steel. \$keg \$6.376 Tec Awis, Chisels. \$kcc. American Ice Chisel. \$kcc.	1
*	R. I. Horse Shoe Co., Perkins' Improve. Light, Medium and Heavy	-
X 150 X	Mule Shoes. # keg \$5.375g Dunning's Steel # keg \$9.25	
A K	American Ice Chisel % doz \$3.00 net National Ice Chisel % doz \$6.25 dia 20 \$	
*	Mule Shoes. Steel. Skeg \$5.375 Dunning's Steel. Skeg \$5.375 Dunning's Steel. Skeg \$6.375 Dunning's Steel. Skeg \$6.375 Dunning's Steel. Skeg \$6.385 Dunning's Steel. Skeg \$6.385 American Lee Chisel. Skeg \$6.385 Steel Skeg \$6.385 Dunning's Iting Ficks. Skeg \$6.385	1
%	Iron Head Picks, Sargent's. # doz \$1.00 dis cox10 \$ Ice Mallets, Pick in head. # doz \$1.75 dis cox10 \$	1
5. 16	tee Axes, Small Cast or Malleable. ≱ doz \$2.00 dis 15 5 Combination Ice Tools. ↓ doz \$2.00 in to	
	Ice Cream Freezers.   dl2 40 \$   Amn. Mch. Co.   dl2 40 \$   Torrey's   dls 40 \$   Packer's.   dls 40 \$   Amn. Mch. Co.   dls 4	
%	Packer's	1
1	Arctic Solid	
N. N. N	Champion	1
100	Brass, 7 to 17 inches inclusive * b 28c net Brass larger than 17 inches b b 32c net Kettle Ears.	
N. N. N.	Brass larger than 17 linenes	1
2 2 2	Ames' Bread Knives	
200	Table and Pocket See Cutlery	1
发发生	K nobs.       Carriage (Jap'd Soc ₱ gross).     dis bo&to ≤       Base, Rubber Tip.     dis bo&to ≤       Hemacite Door Knobs     new list, dis 3,&\$ ≤	1
8	Door Mineral Door Por. Jap'd Door Por. Plated Same discounts as Door Locks.	1
20 20 20 20 20 20 20 20 20 20 20 20 20 2	Door For. Finted	1
8	Door For.	1
		1
S K		1
-	Melting, Reading	1
1	Tubular	The Later of the later
	Ashirerus   No. 0, \$7.00; No. 1, \$0.00   net	net her see E.
- 1	Vantan dia value di	日子田
	Yankee dis loxio 5 De Heque dis loxio 5 Police Small, \$6.40; Med., \$7.75; Large, \$10.00. di 10% Convex Reflector \$2.7 \$\text{dos.}\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	BEE
6	f.emon Squeezers.	25 25 25

5	The "Boss" & doz \$4.00, dis to&to \$
2000	Pean's Nos. 1. # doz. \$15.00: 3, \$5.50.dls 10.510 5  1.1nes.—Linen Fish
2 2 3	Silver Lake, Braided, Nos. o. \$6.00; No. 1, \$6.50; No. 2, \$7,00; No. 3, \$7.50 & gross
2000	The "Boss".
6	Wire Clothes, Galvanizedeach 250@40c net
3	Cabinet, Eagle
50 50 50	Cabinet, P. & F. Corbin
200	Cabinet Stoddard Lock Codls 30 % Trunk, new flst, Jan. 1, 1881dls 15&2 %
2	Masons' Colored Cotton   dis 45 %
	Flat Key
22	Yale Lock Co., Flat Key. dis 40 % "Shepardson" or "U. S." dis 35 % "Falter" or "A merican" dis 40 %
	Platedis 33/62 % F. Many's "Extension Cylinder"\$10.50 % doz net
	Branforddis 40 %
	Norwalk
	P. & F. Corbin Dis 65 & 2 %, ccsh, from Russell & Erwin Revised List of December
	Nimick & Brittan Hard- ware Mfg Co
	Norwalk.  P. & F. Corbin.  Russell & Erwin.  Mallory, Wheeter & Co., Nimick & Brittan Hardware Mg Co.  Reading Hardware Co. low list
	Russell & Erwin PADLOCKS.  Russell & Erwin Mallory, Wheeler & Co. (Dis 45 & 25 cash, from Re-
	Wm. Wilcox & Co   vised List of Dec. to 1883,   Norwich Lock Co   vised List of Dec. to 1883,
	Eagle
	Conestoga
	A. E. Dietz
	Fraim & Bro. List of 1883-84
	Malera,—doz. bottles, & doz. \$1.75 & gross \$17.00 net
	Penfield Block Co., Lignumvitæ & Hickory dis 30 % Meat Cutters.
	Russell & Erwin  Mallory, Wheeler & Co. Dis 15 & 2 5 cash, from Rewn, Wilcox & Co. Viset List of Dec. to 1883.  Norwich Lock Co. Viset List of Dec. to 1884.  Norwich Lock Co. Standard dis 25 60 40 5 co. 1883.  Yale Lock Mfg. Co. S Standard dis 25 60 40 5 co. 1883.  Eagle dis 25 60 40 5 co. 1883.  Conestoga dis 25 60 40 5 co. 1883.  J. H. McWilliams. dis 50 5 J. H. McWilliams. dis 68 5 J. H. McWilliams. dis 86 5 J. H. McWilliams. dis 18 65 Fraim & Bro. List of 1883-84.  Eagle dis 25 60 40 5 co. 1883-84.  Miles Co. List of 1883-84.  List of 1883-84.  Miles Challenge dis 25 co. 15 60 50 50 50 50 50 50 50 50 50 50 50 50 50
	Perry's, Nos. 1 2 3 4 4 g'rd 5 g'rd
	Woodruffs (P. S. & W.)NOB. 100 150 150
-	Hales'Nos. 11 12 13 15.00—dis 20% 24 16.00—dis 50% 10% 24
	Draw Cut. Nos. 5 2 6 8 10 Each. \$50.00 75.00 80 00 225.00 400.00—dls 2c 5
	Nos 1 2 3 4 B Each \$5.00 7.00 20.00 25.00 50.00 60.00
	Enterprise
	Each\$6.00 75.00 80.00 225.00 100.00—418 az \$ Nos 1 2 3 4 B Each\$6.00 75.00 205.00 25.00 00.00 60.00 Enterprise 10 12 22 6 00 00.00 Enterprise 10 12 22 6 00 00.00 Elsach\$5.00 25.00 40.00 60.00 Elsach \$5.00 25.00 40.00 60.00 Elsach \$5.00 60.00 Enterprise \$5.00 40.00 60.00 Elsach \$5.00 40.00 60.00 E
	Kleser's Monarch
	Silver & Deming
	Silver & Dening
	Mincing Knives. Am. (2d quality), # gross, 1 blade, \$7 2 blades, \$12
	Lothrop's
	Cowles Hdw. Codfs 55 % Molasses Gates.
	Stebbins Genuine
	Chase's Hard Metal
	Weed's
	NallsSee trade Report
	to a be add lec to list; I lb. boxes, add Ic to list.) Square Nuts
	Hexagon Nuts
	Seef Shavers (Enterprise Mfg Co.)   dis 20&10 S   Minching Kulves.   Am. (cd quality), % gross, to lade, \$7   2 blades, \$12   3 blades, \$18   bet Lothrop's.   dis 20&10 S   bet Lothrop's.   dis 20&10 S   dis 315&10 S   dis 325&10 S   dis 325 S   dis 425 S   d
	Turner & Seymour Mfg. Codis 50 %
	U. S. Navy B 6 C
	Ollers.—Zinc and Tin
	Malleable (Hammer's)
	Olmstead's, Tin and Zinc
	Broughton's, Ernss
I	N. Y. Belting and Packing Codia 20 4  Penclis.—Faber's Carpenters'high list, dis 50 2
1	Dixon's Lead
	Picks. dis 402 to 5
I	Adze Eye, s to 6. \$12.00; 0 to 7, \$13.00
1	Brass Head, Sargent's list
1	Porcelain Head, Servent's list
1	Picks   4 to 5, \$i1.00 : 5 to 7, \$i2.00   dis 50 \$ Rail of 4 to 5, \$i1.00 : 5 to 7, \$i2.00   dis 50 \$ Rail of 5, \$i2.00   dis 50 \$ Rail of 5, \$i2.00   dis 50 \$ Picture Nails   dis 50 \$ Picture Nails   dis 50 \$ Picture Nails   dis 50 \$ Porcelain Head, Surgent's list   dis 50 \$ Porcelain Head, Surgent's list   dis 50 \$ Porcelain Head, Jud's list   dis 40 \$ \$ \$ Porcelain Head, Jud's list   dis 33 \$ \$ Pinking Irens   \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
1	Astor Plaiting Machine
	Crown Platting Machines
	Bench, First Quality
	Bench, Second Quality. dis 25 g Modding. dis 15 g Halley's (Stanley R. & L.Co.) new list, Jan.'70, dis 2021 o Halley's (Stanley R. & L.Co.) new list, Jan.'70, dis 2021 o Halley's "Victor". dis 2021 o Balley's "Victor
	Bailey's "Victor"
	Plane Irons, Butcher's
l	Plane Irons, Auburn Tool Co dis 20 & 10 & Plane Irons, The Globe Mfg. Co., Baldwin
	Plane Iron, Ohio Tool Co
	Pilers and Pippers. Button's Patent dis 3315 5
l	Pilers and *ippers.         dis 33\6 g           Button's Patent         dis 200 g           Hall's Pat. Compound Lever Cutting Nippers, No. 2, \$1m. \$21.50 g         dis 200 g           \$1m.\$21.50 g         doz. dis 200 g           Humason & Beckley Mfg. Co.         dis 200 g           Gas Pilers         dis 40 g           Eureka Pilers and Nippers.         dis 40 g           Eureka Pilers and Nippers.         dis 31 g           Kussell's Parallel         dis 31 g           P. 8. & W. Cast Steel         dis 31 g           Plumbs and Levels.         dis 31 g
l	Gas Pliers
	Russell's Parallel
	Plumbs and Levels. Disston's
	Disston's. dis 40 \$ Stanley R. & L. Co.'s Pat. Adjustable. dis 56,810 \$ Stanley R. & L. Co.'s Non-Adjustable. dis 56,810 \$ Chapin's Patent Adjustable. dis 56,810 \$ Chapin's Patent Adjustable.
	Chaplin's Patent Adjustable   dis 5ax10x10   Chaplin's Non Adjustable   dis 5ax10x10   Standard Rule Co.'s New Adjustable   dis 5ax10
	Johnson's Patent Adjustable
	Davis' Inclinometers dis 20 %  Post fiele and Tree Augers. Samson Post Hole Digger. & d vz \$37.40, dis 20 % Fletcher Post Hole Augers. & doz \$30.00, dis 20 %
	6 in., \$23.50; 7, 8 and 9 in., \$25.00 W doz dis 20&10 %
	fruning flooks and Shears. Disstor's Combined Fruning Hook and Saw,
	Disston's Pruning Hook # doz \$12.00, dis 20 %
	Disston's Pruning Hook. # dos \$10,00, dis 20 \$ E. S. Lee & Co.'s Pruner dis 15,145, 40 so 5 E. S. Lee & Co.'s Pruner dis 15,145, 50 pruning Shears. # dos \$2,00 \$6,00 Wheeler, M. & Co.'s Combination. # dos \$12, dis 20 \$ Dunlap's Saw and Chisel # dos \$6,00, dis 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 5,00, 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 5,00, 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 5,00, 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 5,00, 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 5,00, 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 5,00, 10 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 5,00 \$ #fulleys.—Hot House and Tackle dis 5,00, dis 5,00 \$ #fulleys.—Hot House and Tackle dis 5,00 \$ #fulleys.—Hot House and H
	Dunlap's Saw and Chisel & dez \$0.00. dis to \$  f'ulleys. — Hot House and Tackle dis 55&10 \$
	trong Screw dis 50 to 4
-	Jap'd Clothes Line dis occio 1 Hay Fork, Solid Eye\$1.50; Swivel, \$5.50, dis 50210 1
1	lap'd Side dis bukto k lap'd Clothes Line dis bukto k lap'd Clothes Line dis ookto k lay Fork, Solid Eye & \$2 \$2 \$3.
1	Bell or Drive & doz \$2.00; 2.28; 2.40, dispose tok 4 semis & Call Co.'s Cast Steel Drive
1 10	pring # do \$7.00, dis tox 7-2 s
7	Jomes & Cutl Co.'s System and Check
-	spring Leach's Patent. # do \$7.00, dls coxyon a spring. Cail Co.'s Patent. dls 15 Semis * Cail Co.'s Spring and Check dls 20 Solid Tinners # dos \$1.44, dls 40 Semis * Sliding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Door, Wrought Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Brass. * D 130, dls 156 Semis * Cail Co.'s Sidding Brass. * D 130, dls 156 Semis * D 130, dls

28	
Barn Door Inch	1 210
Per 100 feet	net Grod Hus
Rayer =   Frages	Row Row Es tron
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River   Sets   18   18   18   18   18   18   18   1	Defin
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Send Irona.  From a to 10.  Self-Heating	et Lig
Mrs. Pott's Irons, Doubled Pointed	Wash Wash Wash Wash Wash
Chinese I.au. dry (N. E. Butt Co.)	Arka Turk Turk Lake
Bacder & Adamson's Flint, Assorted. 4.75 \( \tilde{\pi} \) ream Baeder & Adamson's Star	Grind Ste Josep
Rartles Best Flint, assorted # ream 4.50 Bartles Best Flint, Nos. 2 to 3 # ream 5.50 d Bartles Best Flint, No. 3 6 # ream 5.50 d Columbia Flint, all Nos # ream 4.00	Gem. Gold Mir. Lustr
Madison Mills Fillt, an Alson	Risin Dixor Loyn sma
New England same list as H. & A. Fint. dis 36 Gage's dis 4 Stant Cord. — ommon. # h 130 m Patent. # h 130 m Silver Lake, Hemp. # h 50c, dis 108; Silver Lake, White Cotton. # h 50c, dis 108; Silver Lake, Drab Cotton. # h 55c, dis 108; Silver Lake, Trab Cotton. # h 55c, dis 108; Silver Lake, Trab Cotton. # h 55c, dis 108; Silver Lake, Trab Cotton. # h 55c, dis 108; Silver Lake, Trab Cotton. # h 55c, dis 108; Silver Lake, Trab Cotton. # h 55c, dis 108; Silver Lake, Trab Cotton. Silver	Tinne Tinne Swed
8ilver Lake, White Cotton.	Amer Coppe Swede
Sash Locks.	" Finish
Clark's, No. 1, \$10.00; A. 1,	Baske Brush Leath Cigar Chair
Common Sense," Japanned, Coppered and Bronsed	Double Tas Committee Tres
Universal dis 30 Sash Weights. 4019 to Sash Weights. 5010 Eyes. in so 5 lots and over 5 19cne Sausage Nuffers or Fillers. Miles "Challenge" 40s. No. 15; No. 0, \$21, dis 26 To Draw Cut No. 4 each \$50.00, dis 20 Enterprise Mfg. Co. dis 25 Silver S. dis 25 dis 26 Silver S. dis 25 dis 25 dis 26 dis	Enter
Draw Cut No. 4. each \$30.00, dis. 20 Enterprise Mfg. Co dis 25 Silver's dis 25 Silver's dis 25	The Tin Ca
Disston's Hand, Panel, Rip, &c. dis 20 Boynton's Lightning Cross Cuts, new list. dis 40 Boynton's Circular and Mill. dis 40 Boynton's Ice. dis 25	g Entery Wood All Iro Nashu Wilson
Saws. Disston's Circular, Mili and Cross Cut. dis 40 Disston's Hand, Panel, Rip, &c. dis 20 Boynton's Lightning Cross Cuts, new list. dis 30 Boynton's Circular and Mill. dis 40 Boynton's Circular and Mill. dis 40 Boynton's Lightning Hand, Panel and Rip. dis 25 Wonton's Lightning Hand, Panel and Rip. dis 25 W. M. & C. C. S. Hand. dis 30 W. M. & C. C. S. Hand. dis 30 Lightning Boynton's Framed Wood. dis 30 Lightning Con's Framed Wood. dis 30 Lightning Con's Framed Wood.	Clippe Acme. Tee ( Wins
Livingston's Butcher and Kitchen   dis 20     Livington's Framed Wood   103   104   105     Fer dos   \$10.10   103   104   105     Fer dos   \$10.00   \$6.00   10.00   7,00     Feace Circular and Mill   dis 40     Feace Hand, Panel and Kip   dis 25     Feace Coross Cuts   dis 35     Feace Band Saws, all widths   dis 10     Richardson's Circular   dis 40     Richardson's Mill and X Cut   dis 40     Richa	Machin Tools ( Tra Woller
Peace Cross Cuts. dis 35 / Peace Band Baws, all widths dis 10 / Richardson's Cu cular dis 40 / Richardson's Mill and X Cut. dis 40 / dis 40 /	Reiher Excels Tra Game.
Richardson	Game, Game. Mouse, Mouse, Mouse
No   No   No   No   No   No   No   No	Lothro Reed's Disstor Peace's
Hammer, Hotchkiss	Clemer Rose's Brades Worral
Lesach's   No 0, \$8.00; No 1, \$15,00; dis 15   Kask's   dis 202105     Hammer, Hotchikiss   B5,00; dis 10   Hammer, Bemis & Call Co.'s new Patent. dis 20225     Hammer Bemis & Call Co.'s Lever & Spring Hammer dis 20225     Semis & Call Co.'s Plate   dis 10     Semis & Call Co.'s Cross Cat   dis 12     Semis & Call Co.'s Cross Cat   dis 12     Alken's Genuine   \$1.00; dis 26     Alken's Imitation   \$3.00; dis 25     Hart's Patent Lever   dis 20     Siston's   dis 20     Siston's   dis 20     Sorrill's   No 5, \$53, dis 2025     Seates   Barth Counter, No 171   \$4.00     dox \$42, dis 45     Harch Counter, No 171   \$4.00     \$4.00   \$4.50     Harch Counter, No 171   \$4.00     \$4.00   \$4.50     \$4.50   \$4.50	Trie Butter True Penfiel
Morrill's	SOHU.
Union Flatform         \$6.00, dis 25 g           Fairbunks         dis 25 g           Richié Bros	Paralle Paralle Paralle
Forsyth Scale Co	Paraile Paraile Paraile Paraile
Social   S	Paralle Paralle Paralle Saw Fil
	Saw Fil Saw Fil Saw Fil Saw Fil Cowell
Adjustante flox a serape (a. t. a. t. c. d. c. d. s. c. d	Was Sm Johnson
Banja, Freviumes Toologists 19 Secretary Corners Control of the State of the Secretary Control o	Penny's Appleto Wasi Well Wire
Disation's Fatest Execusion.  dis 25 Btanier Rule & Level Co. 5, Varnished Hdisdis octop Stanier Rule & Level Co. 5, Black Handiesdis octop Stanier Rule & Level Co. 5, Black Handiesdis octop Sargent & Co. 5, Co	Market, Market,
Gay's Double Action Ratchet  \$\forall dos, 4 in \\$0.00; 5 in \\$10.20; 6 in., \\$12.00—dis 35 fi  Mallett & Co.'s Double Action Clutch  \$\forall dos, 4 in., \\$7.00; 5 in., \\$6.00; 6 in., \\$0.00—dis 15 fi  Character of the control	Market, Stone, B Stone, G Stone, T Tinned
Champion	Cast Ste Anneale Anneale
Flat Head Brass, new list Dec. 27, 1882	Fence St Stubs St Japanne Galvanii
Round Head Brass. new list, Dec. 27, 1852. dls 45 %   Prass ane Silver Capped dls 40 %   Ispanned. list of Plain Screws dls 40 %   Ispanned. list of Plain Screws dls 40 %   Ispanned. list of Plain Screws dls 70 %   Bed dls 70 %   Bed dls 70 %   Bed dls 70 %   Bed dls 50 %   Bed	Picture Clothes Wire Clo
Bench, Wood, Beech         \$\psi\$ dom \$3.00, dis 10.5           Sench, Wood, Bickory         dis 20810.5           Hand, Wood         dis 24810.5           Hand Hall, Sargent's         dis 655,810.5           Hand Hall, Sargent's         dis 655,810.5	Wren America Baxter's Baxter's
Sench, Wood, Hickory dis 20010 8 Hand, Wood dis 20010 2 Hand Hand, Sargent's dead the 10 10 10 10 10 10 10 10 10 10 10 10 10	Baxter's Cues' Ge Coes " h Coes' Pa Coes' Pa Girard S
Screw Window Balances. B. Hugunin's having 1953 improvements, No. 1, \$2.00; No. 2, \$1.50; No. 3, \$1.50 \$ dos net scree! Balance.  Aster, \$10.00. dis 25 togers, \$5.00. dis 25 togers, \$5.00. dis 25 togers, \$5.00. dis 25	Hemis & Hemis & Bemis &
Action   A	Bemis & Aiken Po The Favo Webster Taylor's
eymour's, List, Dec., 1881	Agricult
ast Steel Trimmers. dis 55 \$\ \lambda \text{Ins. J. of Sons list. Dec. 1881 dis 55 \$\ \text{Viss. J. of Sons list. Dec. 1881 dis 55 \$\ \text{Wiss. J. of Sons Tailors' Shears. dis 55 \$\ \text{Mbessves.} \text{Uding Loss 18 W. A.C. }\ Uding Los	Universa Universa Universa Peerless, Peerless,
Viss. 4. & Sons Tailors Shears. dis o s Sheaves. Heling Door, M. W. & Co. Hat. dis 5. & 165 2 \$\frac{1}{2}\$ Hiding Door, R. & E. list. dis 5. & 165 0. & 162 2 \$\frac{1}{2}\$ Hiding Door, R. & E. list. dis 5. & 165 0. & 162 2 \$\frac{1}{2}\$ Hiding Door, Parent Hotler dis 5. & 165 0. & 162 2 \$\frac{1}{2}\$ Hiding Door, Parent Hotler, dis 5. & 165 0. & 162 2 \$\frac{1}{2}\$ Hiding Door, Parent Hotler, Hatfield's dis 5. & 165 0. & 162 2 \$\frac{1}{2}\$ Hiding Door, Parent Bouler, Anti-Priction. dis 5. & 165 0. & 162 2 \$\frac{1}{2}\$ Hiding Door, Moore a Anti-Priction. dis 5. & 165 0. & 162 2 \$\frac{1}{2}\$ Hiding Shutter, Sargent's list. dis 5. & 162 0. &	Peerless, Peerless, Peerless, Eureka, Novelty Novelty
liding Door, Moore's Auti-Priction. dis of a state Shutter R. & K. ist. dis actions a siliding Shutter, Sargent's list. dis oction dis footing Shutter, Keading list. dis oction	Novelty Excelsion Excelsion Excelsion

	Shovels and Spades.  Ames. New list, July 1, 1881 dis Stifffishes. dis vot dis July 1, 1881 dis vot dis Stiffishes. dis vot dis Groom Shovel Co. dis Hussey Binns & Co. dis Vayne Pettebone & Son, list Jan 1, 1885 dis St. T. Pettebone, Pat. Shovels, new list. dis eminaton's (Lewman's Patent). dis eminaton's (Lewman's Patent). dis Shovels and Tengs. list. dis cotrol from and Brass Head. R. & R. list. dis cotrol from and Brass Head. R.	15.0
1	Old Colony	15 % 15 % 15 %
	avne Pettebone & Son, list Jan. 2. 1882	10 % 20 %
	Rowland's Shevels and Tongs Iron and Brass Head, R. & R. list. dis coatrol Iron and Brass Head, P. & & W. dis todated Folished Steel, new list. discoatrol Niates.	15 %
2 2	Polished Steel, new list	10 %
400	Polished Steel, new list.   dis to & to & Siates.   Si	10 %
	Wood. dis Adis Stearns'	15 % 10 % 10 %
-	Spoke Trimmers.   # doz \$10.00, diq 408   Steams'   # doz \$0.00, diq 208   Steams'   # doz \$0.00, dis 208   Steams'   * doz \$0.00,	5%
-	Dourlass'	5%
	Spoons	5055
	German Silver dis 30& 10& 10& 10& 10& 10& 10& 10& 10& 10& 1	5 % net
	Tin (P. S. & W.), Tables	o %
	Squares     Steel and Iron   dis so&ro&z\$ } Full case     Steel and Iron   dis so&ro&z\$ } extra 10     Try Square and T Bevels   dis so&ro 10     Square and T Bevels   dis so&ro 10     Winterbottom's Try and Mitre   dis so&ro 10     Steeks and Dies   dis so 11     Steeks and Dies   d	8. %.
	Winterbottom's Try and Mitredia 20&1  Stocks and Dies	0000
	Stocks and Dies discontinuity Stocks and Dies discontinuity Screw Plate discontinuity Stone Stone No. 1, 6c; Axe, 8c discontinuity Stone Stone No. 1, 6c; Axe, 8c discontinuity Stone (Chase) discontinuity discontin	os os iet
	Washita Stone. No. 1, W m 14C m Washita Stone, Slips. No. 1, W m 30C m Arkanasa Stone No. 1, 4 to 6 in W m 31,35 dis n	et et
	Turkey Oli Stone (Chase)4 to 8 in., W B, 6cc, dis ru Turkey Slips (Chase)	N M M
	Crindstones, Family, Loring's	2 2
	Gem	N N N N
	Ruby	et et
-	small, \$3 ; No. 3, medium, \$4.  New List, Sept. 1, 1882.	2,
	Tinned Swedes Tacks         dis 30 %           Tinned American Tacks         dis 30 %           Swedes Tacks, all kinds         dis 30 %           American Cut Tacks         dis 30 %	_
-	Copper Tacks and Nails.         dis 30 %           Swedes Hungarian Nails.         dis 35 %           Gimp and Lace Tacks.         dis 30 %	I WIN
	Gimp and Lace Tacks, Tinned	no g on
	Basket Natis.       dis 20 %         Brush Tacks.       dis 20 %         Leathered Carpet Tacks.       dis 20 %         Clear Box Natis       dis 20 %	ALL.
	Gimp and Lake   Facks   Finned	36
	tves Tap Borers	XXX
	Double-pointed Tacks   dis soit	×
	Thermometers Tin Case	× ×
	All Iron	100
-	Nome	5
-	Color   Colo	6 .
1	Wollensak's Fatent	2
0000	dame, Newhouse	
2000	douse, Round Wire	
7 1		
HHMC	leed's Brick and Plastering dis 15 8  Disston's Brick and Plastering dis 20 9  George Plastering dis 35 9  George Plastering dis 35 9	
HEV	rades Brick dis 25 Vorrall's Brick and Plastering dis 20	
B	Arcen	
P	enfield Block Co.'s list, 1882	(
SPLE	olid, Wilkinson's	
PPP	arailel, Wilson's	
PPP	araliei, Merrili's	
PPSA	araliei, Prentiss	
Ši Ši	w Filers, Hopkins'	
1	chardson's Vise and Anvil	
1	Truciss (Warchense, &c.e. enfield Block Co. s list, 1882. dia 40 % Vises. centield Block Co. s list, 1882. dia 40 % Vises. did. Peter Wright's. disk, 1883. did. peter Wright's. disk, 15810 % orallel, Flaher & Morris Double Screw. dis 15810 % arailel, Flaher & Morris Double Screw. dis 15810 % arailel, Flaher & Morris Double Screw. dis 15810 % arailel, Parker's. dis 25 % arailel, Parker's. dis 30 % orallel, Parker's. dis 30 % orallel, Howard's. dis 30 % orallel, Howard's. dis 30 % orallel, Merrill's. dis 15 % orallel, Prentiss. dis 16 % orallel, Prentiss. dis 16 % orallel, Prentiss. dis 26 % orallel, Prentiss	
318	Wire.  ans and Copper. dis 33½ %  arket, Bright and Annealed, Nos. o to 18, dis 62½666, \$	F
1.1	arket, Coppered	
見見る	one, Bright and Annealed Nos. 27 to 36., dis 6254465 S one, Gaivanized Nos. 19 to 30	
in it	nneal Broom wire	
eeta	nce Staples. Oalvanized. • 5 000 100 100 100 100 100 100 100 100 1	
日にいい	Vanised Barb Fence	CY.
Sec. of B	rass and Copper . dis 335/8 arket, Eright and Annealed, Nos. old 18. dis 625/6605 ä arket, Coppered dis 525/6605 ä arket, Coppered dis 525/6605 ä arket, Coppered dis 525/6605 ä arket, Galvanised did 47/66805 ä arket, Tinned, Tinned list . d. d. s. 47/66805 ä arket, Tinned, Tinned list . d. d. s. 47/66805 ä one, Bright and Annealed Nos. 10 to 26. dis 62/6605 ä one, Galvanised Nos. 10 to 30. dis 62/6605 ä one, Galvanised Nos. 10 to 30. dis 62/6605 ä one, Galvanised Nos. 10 to 30. dis 62/6605 ä one dis	S
8800	xter's Adjustable "B," dis zoat s xter's Diagonal dis 20 s es' Genuine cash in 10 days dis 5061 s es "Mechanics"	
004	es' Pattern Malleable dis 50m 103 3 6 6 7 5 8 es' Pattern Wrought dis 70 5 ard \$1 and dis 60 8 7 8 m 2 dis 60 8	
4000	mis & Call's Patent Combination dis 2565 5 mis & Call's Merrick 'sPattern dis 35 5 mis & Call's Brigg's Pattern dis 25	fin
e ill	mis & Call's Cylinder or Gas Pipe	P
B E P		H
000		be
200	ricultural Wrenches, Eberhard dis 33/6 8  **Prince**E**  **Prince**  **Per dos.*  **Vernal, XX, No. 246	
II II	reka, No. 2 velty No. 2, for Common Pubs	

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Webs. Gummer Cutters and Cutter Grinders,

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Machinists' Steel Squares, Rules, Levels, Straight Edges,

Mortise Gauges, Molders' Tools, Paper Knives,

Plumbs & Levels,

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Post Hole Diggers,

Saw Clamps,

Saw Sets,

Screw-Drivers, Slate Knives,

Slaw and Crout Cutters, Squares and Bevels,

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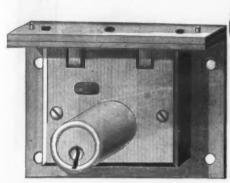
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Report of Prof. R. OGDEN DOREMUS.

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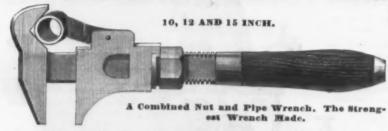
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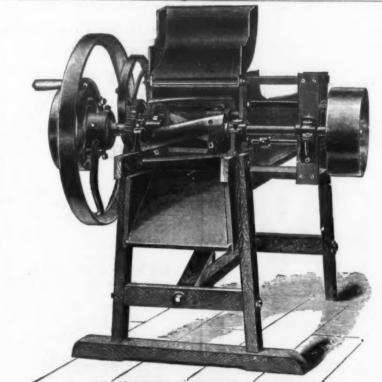
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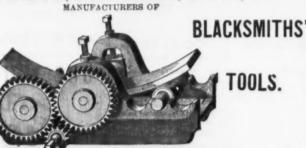
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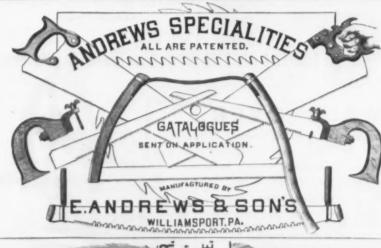
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#### The Dayton Screw Manufacturing Co.

In 1873 Mr. George D. Davis, a well-known capitalist, purchased six acres of land in the suburbs of Dayton, Ohio, and immediately commenced the erection of a brick building the dimensions of which were 125 x 40 feet, four stories in hight, placing therein a number of machines for the manufacture of screws. After a short and eventful existence, early in 1876 Mr. Davis finally succumbed to early in 1876 Mr. Davis finally succumbed to heavy financial pressure and went into bankruptcy, his largest creditors being a number of well-known merchants in Cincin-nati, who formed a syndicate to dispose of the property to the best advantage. After a number of ineffectual attempts to sell the a number of ineffectual attempts to sell the property were made, and there apparently being no prospect of disposing of the plant advantageously, the creditors finally, in 1881, filed articles of incorporation as the Dayton Screw Manufacturing Company, with Mr. Albert G. Angell as president and manager; Preserved Smith, treasurer, and A. S. Winslow, L. B. Harrison, W. H. Harrison and William Hooper, all of Cincinnati, as stockholders. Mr. Angell, who had severed his connection with the American Screw Company, at once took charge of affairs. Company, at once took charge of affairs.

Mr. Angell perceived that the old building and machinery would not meet the requirements of such a business as he wished to do, and accordingly had plans and specifications immediately prepared, and commenced the erection of a large four-story brick structure with a wing having a frontage on Ottawa street of 150 feet and running back 104 feet to the Miami Canal. Orders were also issued for an entire new outfit of ma-chinery, even to the engine and boilers. With this factory and outfit the company have been putting their screws on the market, gradually extending their manufacture.
They have also been making such recent additions and improvements that on the 1st of January, 1884, the capacity of the works will be still further largely increased. We may add that the company, thus equipped with every modern improvement, have just commenced the manufacture of a full line of round-head and brass screws. A 300-horse-power Corliss engine furnishes the power, and 125 hands are numbered on the pay-roll.

The recent complete collapse of the Ex-change Bank of Montreal affords a signal instance of official dereliction in the management of public funds, and by implication condemns the system under which such disastrous consequences are possible. The directors, up to the date of the final catastrophe, appear to have been in utter ignorance of the affairs of the institution; there had been no inspection for several years; libilities amounting to hundreds of thousands of dollars had been incurred without any adequate security, and in defiance of any adequate security, and in defiance of every safeguard. Commenting on this scan-dalous exhibit, the Montreal Herald says: "Canada has known too many examples of banks wrecked by the neglect by boards of directors of their plain duty. There was the case of the Bank of Upper Canada. It is somewhat remote, but it was a notable illustration. There was the Commercial, of Kingston. The Commercial and the Mari-Kingston. The Commercial and the Mari-time, of St. John, N. B., came to grief in the same way. The case of the Bank of Prince Edward Island was a remarkable in-stance, the juvenile cashier having given away the funds of the bank as if no board of directors existed. Coming to Montreal, we have had the serious failures of the Me-therics; and the Consolidated hapire as home we have had the serious failures of the me-chanics' and the Consolidated banks as home warnings against the reckless system of management pursued in the Exchange." Repeatedly some of the best financiers in the Dominion have given dark intimations respecting the dangers to which they were exposed, and it is not probable that the events now chronicled occasion the least surprise. They might find something in the National banking system of the United States worthy of their adoption.

Representative Campbell, of Pennsylvania, proposes to renew his bill of last session, providing for the appointment by the President of a commission of seven persons skilled in the investigation, production and use of metallic substances and other structural materials. Their business will be to plan and superintend the execution of tests and inrestigations of materials used extensively the construction of buildings, bridges, ships and other structures and machinery must be submitted to the Secretary of the Interior, but no salaries will be paid, although mileage and other necessary expenses incurred will be allowed the members of the

The commissioners recently appointed by Mayor Edson, under the Rapid Transit act, to consider the necessity of providing further railway facilities for this city, in accordance with the increase of its population and business interests, have held their first public meeting. The rettion under which public meeting. The petition under which the comission was appointed sets forth that the capacity of the elevated roads is inadequate to the demands of the passenger traffic, especially during the "commission" hours of the day, and points out the advan-tages to be derived by the adoption of the cable-traction system of street railways which is now in operation in Chicago and San

The subterranean cable connecting Paris with Marseilles was lately subjected to a series of tests, which are said to have been Read Plays Two Wheeled and Common Scrapers. series of tests, which are said to have been very satisfactory. The underground cables in France are laid in cast-iron pipes, at a depth of more than 5 feet below the ground, chambers for facilitating repairs being inserted about every 545 feet, while at every 109 feet the pipes are united by cast-iron couplings, which will also permit of inspective seet experience the cable. ing and repairing the cable

The number of Cornish pumping engines reported in England for November is 14. They have consumed 1872 tons of coal, and lifted 12.3 million tons of water 60 feet high. The average duty of the whole is, therefore, 44.400,000 pounds lifted 1 foot high by the consumption of 112 pounds of coal. The highest duty reported for any of the pumps was 55.9 millions.

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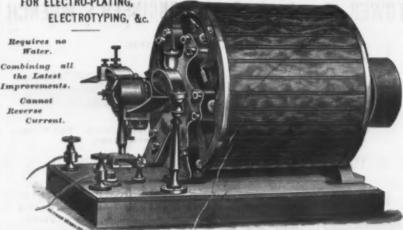


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Compte _C Spring Cart Co., Rushville, Ind	Forgings, Iron and Steel.  Pennsylvania Steel Co., Dauphin Co., Pa  Pittsburgh Tool Co., Pittsburgh, Pa  Temple & Lockwood, 12 Platt, N. Y.
Unsters.—Phoenix Caster Co., Indianapolis, Ind10 Yale Caster Co., New Haven, Ct	Foundry Supplies, Am. Facing Co., 617 W. 15th. N. Y Emerick J. A. & Co., Philadelphia, Pa
Castings, Brass and Iron. Moore S. L. & Sons, Elizabeth, N. J	Stokes & Parrish, Phila., Pa
Bowler & Co., Cleveland, Ohlo	Furnaces, Makers of. Richmond & Potts, 119 S. 4th. Phila., Pa
Eberbard Mfg. Co., Cleveland, O	Back Saws. Millers Fairs Co., 74 Chambers, N. Y
Whippie Bigs. Co., Cieveland, Ohlo	National Gas and Mfg. Co., Cleveland, O.,
Castings, Steel. Chester Basel Castings Co., 407 Library, Phila., Pa. 41 Eureka Cast Steel Co., Chester, Pa., 44 Flagg Stanley G. & Co., Philadelphia. 44 Johnson L. G. & Co., Spuysea Duyvil, S. T. 44	Glass Cutters Andrees Thos. J., Philadelphia, Pa
Flagg Stauley G. & Co., Philadelphia	Russia Cement Co., Gloucester, Mass
AND AND MARKETSON OF	Grain Scoops.  Hussey, Binns & Co., Pittsburgh, Pa Grate Bars.
Chemists. Raines R. Philadelphia	Croswell David & Philadelphia Pa
Chemicals Eimer & Amend, 204 Third Ave., W. Y	Grindstones. Lombard & Co., Boston, Mass. Molecrnott & Berea Stone Co., Cleveland, O. Ohio Grindstone Co., Cleveland, O.
Buck Bros., Milibury Mass.  Civil Engineer and Geologist.  Candolph R. S., Martinsburg, W., Va	McDermott & Herea Sione Co., Cievesand, O., Ohio Grindstone Co., Cieveland, O., The Francis T. Witte Hdw. Jo., iii Chambers, N. Y. Wood Walter B., 28 and 28 Front N. Y. Worthington & Sons. Cleveland, O.
Chemicals Eimer & Amend, 205 Third Ave., N. Y. 37 Chiseis, Mass/acturers of. Buck Bros., Milibury Mass. 13 Civil Engineer and Geologist. Randolph B. S., Martinsbury, W., Va. 32 Clay Pigeons and Traps. The Clay Pigeon Co., Cincinnati, O. 49 Clay Pigeon Co., Cincinnati, O. 49 Clay Pigeon Co., Cincinnati, O. 49	Gunpawder, Makers of, Laffin & Rand Powder Co. 20 Murray, B. Y Guns, Platels, &ze, Kittredge B. & Co., Cincinnati, O
Dunbar Bros. Bristol. Comm.  (lethes DrywFm. Hill Dryer Co., Worcoster, Mass	Hammera, Steam. Bradisy & Co., Syracuse, N. Y. Hand Ferce Pumps.
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Enterprise Mfg. Co., Philadelphia, Pa. 34 Coke.—Schoonmaker, J. M., Pittaburgh, Pa. 34	Handles and Spokes. Hundley V. G., 72 Reade, N. Y.
Hemis & Call Hdw. & Tool Co., Springfield, Mass., 208:31 Stevens J. & Co., Chicopee Falls, Mass., 12	Field Alfred & Co., et Chambers, N. Y
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	Field Alfred & Co., 93 Chambers, N. Y.  Hardware Manufacturers
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Goddard C., Alliance, O	Lloyd, Supplee & Waiton, es; Market, Phila., Pa Miller's galls Co., 74 Chambers, N. Y.
Carm Shellers Goddard C. Alliance, O	Lloyd, Supplee & Waiton, os Market, Phila, Pa., Miller's rails Co., 74 Chambers, N. Y. Reading Hardware Co., Beeding, Pa. Shepard Hardware Co., Buffalo, N. Y. Stanisy Works, New Britain, Conn.
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Coverings, Beller and Pipe. Chaimers Spence Co., 23 John St., N. Y	
Cranes, Yale & Towne Mfg. Co., Stamford, Conn	
Smith & Sayre Mfg. Co., 245 Broadway, N. Y43	
Cutlery, Importers of.  Boker Hermann & Co., 101 Duane, N. Y	
Boker Hermann & Co., 101 Duane, N. Y. 18 Butcher, W. & S. Sherfield, Espiand. 101 Conway T. G., 88 Chambers, N. Y. 11 Clasworthy F. & W. & Chambers, N. Y. 107 The Alford & Rerkele Co., 77 Chambers, N. Y. 107	1
Cutlery, Manufacturers of.  Bannister A. F. & Co., Newark, N. J	
White Mfg. Co., Bridgeport, Conn	1
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Haight Joseph, Port Chester, N. Y	н
Lovejoy John F., 101 Reade, N. Y	
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Drop Forgings.	
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Crane Bros. Mfg. Co., Chicago, III.       41&42         Eaton & Prince, Chicago, III.       32         Stokes & Parrish, Philadeiphia       4	
Emery. Walpole Emery Mills, South Walpole, Mass	
Vitrified Wheel Co., Westfield, Mass	
Engineers. Cooper Wm. H., 62 William, N. Y	
Engines, Disk. Colts Pat. Fire Arms Co., Hartford, Conn	
Engines, Locometive. Baldwin Locometive Works, Philadelphia, Pa 6	1
Engines. Steam. Makers or.  Pall Engine Co., Erle, Pa	1
Noteman Rotary Engine & Fump Co., Toledo O42 Rumsey L. Mfg. Co., 8t. Louis, Mo	
Noteman Botter y Engine & Pump co., Toledo U. 42 Southwark Foundry & Machine Co., Philadelphia, 43 The Cummer Engine Co., Cleveland, O., 10 The Norwalk Fron Works Co., 8, Norwalk, Cons. 42 The Pusey & Jones Co., Wilmington, Del. 42 The Westinghouse Machine Co., 35 Wetherlii Robt. & Co., Chester, Pa., 43	1
### Western Not. & Co., Chester, Pa., 43  Engravers, Wood. Crosscup & West, Philadelphia, Pa. 3  Maddaus O. W., 23 Park Row, N. Y. 16	
Expanding Mandrels.	
Facings, Foundry  Am. Fecing Co. 417 W. 16h. N Y. 16  Emerick, J. A. & Co. Philadelphia, Pa 3  Obermaver S. & Co., Cincinual, C 34  Paxson J. W. & Co., S44 Beech, Phila 5	
Paxson J. W. & Co., 514 Beech, Phila	
John Sommer's Son, Newark, N. J	,
Food Cutters. Ross E. W. & Co., Fulton, N. Y	
E. T. Barnum Wire and Iron Works, Detroit, Mich. 3	,
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Hiscox File Mfg. Co., West Chelmsford, Mass Johnson & Bro., 1 Commercial, Newark, N. J 8 McCaffrey & Bro., 1732 and 1734 N. 4th, Phila	1
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Climax Fire Brick Co., Pittsburgh, Pa	
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Union File Works, Baltimore, Md.  Fire Bricks, Makers of, Borgner & O'Brien, Philadelphia, Pa.  Climax Fire Brick Co., Pitteburgh, Pa.  Evens & Howard, Bs. Louis, Mo. Gardner James, Pitteburgh, Pa.  A. Hall Terra Cotta Co., Perth Amboy, N. J.  Kreiscner B. & Sons, foot of E. Houston, N. Y.  Maurer Henry, 418 East 23d, N. Y.  Newton & Co., Albany, N. Y.  Ostrander James & Bon, Troy, N. Y.  Perth Amboy Terra Cotta Co., So and Si Astor  House, New York.  Union Mining Co., Philadelphia, Pa.  Yalentine M. D. & Bre., Woodbridge, N. J.  Watson Fire Brick Co., Perth Amboy, N. J.  Watson Fire Brick Co., Woodland, Pa.  Habing Tackle.	
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Jackson Fine Scraper Co., Jackson, Mich	1
Forgos, Pertable, &c.         8uffalo Forge Co.         16           Buffalo Forge Co.         8uffalo N. Y.         16           Bullock T. H.         16         98           Boil Mfg.         Co.         Cleveland, O.         4           Keystone Portable Forge Co.         215 Uarter. Phila         16	
Forgings, Iron and Steel.  Pennsylvania Steel Co., Dauphin Co., Pa	
Temple & Lockwood, 12 Platt. N. Y	1
Emerick J. A. & Co., Philadelphia, Pa	7
Farnacos, Makers of. Richmend & Potts, 11e S. 4th. Phila., Pa	1
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Gates, Felding. Composite Iron Works Co., 93 Church, N. Y30 Glass Cutters. Andrees Thos. J., Philadelphis, Pa30	
Russia Cement Co., Gloucester, Mass30	1
Grain Scoops. Bussey, Binns & Co., Pittsburgh, Pa	
Creswell David S. Philadelphia. Pa. 43 Griadstens. 43 Lombard & Co. Roston. Mass. 43 McDermot a Beres Stone Co. Cleveland, O. 33 Ohio Grindstone Co., Cleveland, O. 33 The Francia T. Witte Hdw. Zo., 111 Chambers, N.Y.4 Wood Walter R., 28; and 26; Front N. Y. 33 Worthington & Sons. Cleveland, O. 33 Gunpowder, Makers of. 33 Gunpowder, Makers of. 10 Guns. Pistols. &cc. 8 Kittredge B. & Co., Cincinnati, O. 10 Banmers. 10 Banmers. 30 Banmer	1
Ohio Grindstone Co., Cleveland, O	
Gunpawder, Makers of. Lafin & Rand Powder Co. 20 Murray, S. T 10 Guna, Pietols, dre,	A
Kittredge B, & Co., Cincinnati, O	R
land force Pumps.	
Union Mfg. Co., co Chambers, N. Y	
Musselman & Son. Quakertown, Pa. 7    Innelice and Steekee.	
Lioyd, Supplee & Waton, 625 Market, Phila	01
Rice W. A. & Co., San Francisco, Cal. 34 Iardware Dealers Lloyd, Supplee & Watton. 65 Market, Phila. 25 Iardware Importers. Boker Hermann & Co., 101 Duane, N. Y. 10 Field Alfred & Co., 30 Duane, N. Y. 10 Rardware Manufacturers. Enterprise Miz. Co., Phila. 33 Lloyd, Supplee & Waiton, os Market, Phila. Pa. 35 Miller's rail Co., 76 Chambers, N. Y. 55 Reading Hardware Co., Bedsing, Pa. 9 Shepard Hardware Co., Budsho, N. Y. 85	
Miller's ralls Co., 74 Chambers, N. Y	01

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11	Hardware Specialities.         Hotchkiss G. M. & Co., West Haven, Conn.         3           Kyser & Rex. Philadelphia, Pa.         3           Shepard Hardware Co., Buffalo, N. Y.         26           Spencer & Underhill, 9t Chambers N. Y.         26	Detroit Copper & Brass Boiling Mills, Detroit, Mich Dickerson, Van Dusen & Co., 20 and 31 Cliff. N. Y. Gli Matthew, Jr., & Co., Philadelphis, Pa Naylor & Co., 99 John, N. Y. Northrop A. C., Waterbury, Conn. Phelps, Dodge & Co., Cliff, bet. John & Fulton, N. Y. Phosphor Bronse Smelting Co., Limited, 512 Arch
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1	Injectors. Jenks James, Detroit, Mich	Phosphor Bronze.
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1	Hartford Steam Boller Inspection & Insurance Go	Picks. Makers of. Piersou & Co., 24 Broadway, N. Y Pig Iron.
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	Hoffman J. W. & Co., 208 B. 4th, Phila	Shenandoah Iron, Lumber, Mining and Mfg. Co., Philadeiphia, Pa
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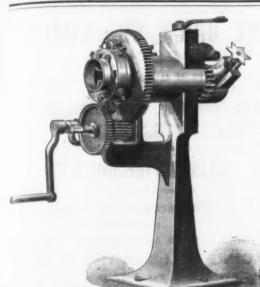
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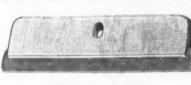
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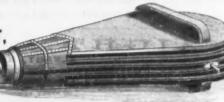
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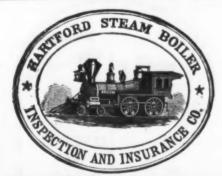


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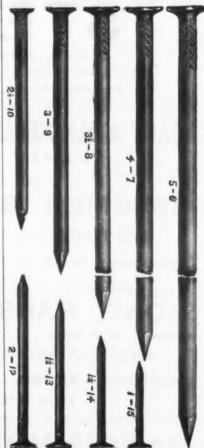
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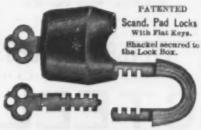
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SPECIAL NOTICE TO THE HARDWARE TRADE.

When we published our Circular to the Trade in August last, in reference to the Kempshall Gravity Sash Lock, no patent had been issued to the Kempshall Company. But to our surprise the Patent Office last month granted them a patent, under which they are claiming the right to make their Fasteners.

The application for this patent was made by one William E. Sparks, and we ask the Trade to note that the Patent Office, in acting upon it, wrote an official letter, on the 18th of last July, rejecting it on one Mr. Morris' patent of 1879, and saying:

"Morris, 23,487, Feb. 18, 1879, shows a Sash Lock which in every "respect is equivalent to that shown and described in this (Sparks') application. It is considered a matter of no consequence that the latch engages with the notch in the bottom plate instead of a top plate, "and it is held to be immaterial whether the tooking notches are above SIMPLEST

" and it is held to be immaterial whether the looking notches are above " or below the latch."

" or below the latch."

As the Patent Office in July thought the Kempshall Fastener the equivalent "in every respect," as they say, of the Morris Fastener, it will not be wondered at that we were surprised they should in September grant a patent for it.

We have determined to test the right of this Sparks-Kempshall patent to continue in existence, and we have therefore this week brought another suit against the Kempshall Company, under Section 4918 of the United States Revised Statutes, to have the patent declared void by the court, as being for substantially the same thing as our Mr. Morris' prior patent.

prior patent.

The Trade therefore will please take notice, and are respectfully requested to await the result of the litigation before being influenced by the Kempahali patent.

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JOHN SOMMER'S SON, 8, 10 & 12 Pearl Street,

WOODEN FAUCETS



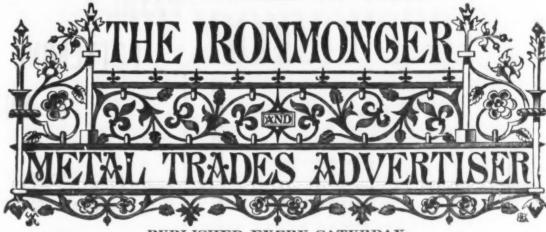
Cork Lined, first quality, warranted. Metallic Key, Lignumvitæ Key, Rosewood, Red Cedar, Cherry and But-

ernut Faucets.
John Sommer's Metallic Key and First Quality Cork-lined Faucets are the best. Send for catalogue

JOHN SOMMER'S BEST BLOCK TIN CHEMICALS AND APPARATUS

FOR THE ANALYSIS OF ORES, IRON, STEEL, FUEL, FLUXES, FURNACE GASES, &c., Our Specialty. Being direct Importers and Manufacturers we can offer superior inducements.

EIMER & AMEND, Nos. 205 to 211 Third Avenue. NEW YORK. Eighteenth Street Illustrated Ontalogue Mailed on Application. Eighteenth Street Station Elevated R. R. ESTABLISHED IN 1859.



PUBLISHED EVERY SATURDAY.

THE OLDEST AND CHIEF REPRESENTATIVE OF THE IRON, HARDWARE AND METAL TRADES.

OFFICE: 42a CANNON STREET, LONDON, E. C.

Advertisements and Subscriptions are Received at the Various Offices of "THE IRON AGE," namely: NEW YORK OFFICE: DAVID WILLIAMS, Publisher of The Iron Age, 83 Reade street, who will, on receipt of application, supply specimen copies free.

PITTSBURCH OFFICE: 77 Fourth Avenue—JOS. D. WEEKS, Manager and Associate Editor.

PHLADELPHIA OFFICE: 220 South Fourth Street—THOMAS SOUTHERN OFFICE: Cor. Eighth and Market Streets, Chattanoga, Tenn.—S. B. LOWE, manager.

CHICAGO OFFICE: 36 and 38 Clark Street, Cor. Lake Street—J. K. HANES, Manager.

SPECIAL FEATURES.

Notes of Novolties.—This is a department of the journal always watched with interest by the trade, as it contains an account, from week to week, of the novelties which manufacturers and inventors are introducing to the notice of the trade. These articles are freely illustrated.

Special Correspondents.—The Frommonger has a deserved reputation for its special correspondence from all the principal Continental, British and manufacturing centers. The writers are gentlemen holding important positions in the districts with which they are connected, and possess facilities for acquiring information specially suited for the columns of the Ironmonger. The Week. Legal News. Trade Notes. Bankraptoies, Foreign Notes. Colonial Joitings. Mercants' Circulars, &c, are each departments of the journal containing a digest of all matters of direct interest to the Iron, Hardware and Metal Trades. In addition to the above, there is a carefully classified list of Patents, together with Editorial Notes, French. Belgian and other Special Correspondence.

to the Ironmonger and Metal Trades' Advertiser, with which is sent every fourth week the Fo-eign Supplement (see below), may commence from any date, but are not rece ved for less than a year complete. The rate is \$5, per annum, inclusive of postage to any part of the world outside Great Britain. To every subscriber is presented, free, in the course of his year, a handsome and useful Ironmongers' Diary and Text Book, a work sold to non-subscribers \$t 75 certs.

By a mutual clubbing arrangement between the two journals, subscriptions to both will be received by either The Ironmonger or The Iron Age on the following terms:

THE IRONMONGER and THE IRON AGE, Weekly.

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SPECIAL ISSUES.

In the spring and autumn of each year there is published a special issue, the circulation of which is not less than Twelve Thousand (14,000) copies.

THE IRONMONCERS' DIARY AND TEXT BOOK.

This is an annual, presented free to every Subscriber to the IRONMONGER AND METAL TRADES' ADVERTISER. It contains a large number of ruled skeleton pages for diary and other entries, and in addition much useful reference information, varied from year to year. It is handsomely bound in cloth, gift; and as copies are used in thousands of establishments for a whole year, it is obviously a medium of exceptional value for advertisements. Sold to non-subscribers at 75 cents.

### THE FOREIGN SUPPLEMENT,

With which is incorporated The Universal Engineer,

is published every fourth week in connection with the extensive and world-wide circulation of the Ironmonger itself. The dates of its publication for the next twelve months will be as follows;

JANUARY 5, FEBRUARY 2. MARCH 1 and 29, APRIL 26, MAY 24, JUNE 21, JULY 19, AUGUST 16, SEPTEMBER 13, OCTOBER 11 and NOVEMBER 8, 1834.

This supplement is published in

FOUR LEADING COMMERCIAL LANGUAGES

of the world, including English, and is sent to all the countries where they are spoken, thus placing the contents of the Ironnanger not only within reach, but in the native language of eighty millions of German, twenty-eight millions of Italian, and fifty-one millions of Spanish speaking people; or, in all, over two hundred millions of inhabitants in the principal nations where the best purchasers of manufactured goods are to be found.

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One-third page	12.50	14.10	15.65	One-sixteenth page	3.20	3.40	4.00

Advertisers will do well to use Illustrations freely. Where economy of space is an object, a left page illustrated and described in one language an be suitably described in four or more languages on the opposite or right page without illustrating.

THE WHOLE FOREIGN HARDWARE TRADE,

so far as our experience of more than twenty years is concerned, will be covered by The Foreign Supplement at least twice a year. Thus a Price List or Advertisement inserted in the brokenoger and Foreign Supplement is a strikingly powerful and most efficient way of publicity, not to be compared with any of the other ordinary channels of communication.

"Something New. Just Out." JOHN H. PATRICK, Sec. and Treas.

AMERICAN TOOL COMPANY, FEED WATER HEATER & PURIFIER. 116 CHAMBERS STREET, NEW YORK, are now Manufacturing a Fine Line of

Housekeepers' Tool Chests,

FITTED UP COMPLETE WITH USEFUL TOOLS.

ALSO MACHINISTS' EMPTY TOOL CHESTS.

Also a full line of all the other styles of Tool Chests manufactured by them. Our New Illustrated Catalogue for Fall Season of 1851 will be issued about August 15th, and will be furnished on application, with prices. Every dealer in Hardware, Machinists' and Railway Supplies should keep a stock of these goods on hand at all times to sup ify the constant and increasing demand. We are the only company in the United States who make a business of manufacturing Tool Chests exclusively.

EMERY AND.

CORUNDUM Can be run in WATER, OIL or ACID

Polishes and Machinists' Supplies. RUB STONES, EMERY WHEEL MACHINERY And DIAMOND TOOLS. CIRCULARS AND PRICE LISTS.

VITRIFIED WHEEL COMPANY, WESTFIELD MASS., U. S. A.





Heating and Purifying Water for

Steam Boilers. Patented July 12 1877. Has Straight Tubes.

SIMPLICITY, RELIABILITY and EFFICIENCY

At Less Cost Than any Other. Write for prices and further information to

Lowe & Watson,

BRIDGEPORT, CONN.

COMMON SENSE

# POST HOLE DIGGERS.



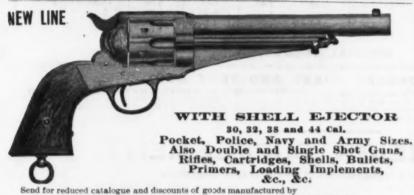
Importers of TIN PLATE, METALS, &c.

Mica.

Mica.

STOVE BOARDS, ZINC AND CRYSTAL, Full Stock of Russia Iron from No. 8 to No. 15.

CO., MERCHANT de PHILADELPHIA and NEW YORK.



E. REMINCTON & SONS,



### WROUGHT IRON TACKLE BLOCKS.

Swivel Hooks for Rope or Chain, POLISHED GROOVES, ALL SIZES IN STOCK.

Also Pulley Blocks for Wire Rope, Headquarters for the

IRVING BRAND WOODEN PULLEY BLOCKS.

McCOY & SANDERS, Manuf'turers,

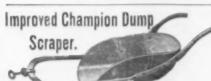
26 Warren Street, New York.

#### CINCINNATI CORRUGATING CO., Superior Corrugated Roofing, Siding, Cell-ing, Arches, Lath, For Rolling Etc. Mills, Blast Furnaces,

Foundries, Machine Shops, Car Shops, Boiler and Engine Hooms, Etc.

Fire, Water and Wind Proof. Light, Cheap and Durable.

Send for Descriptive Illustrated Catalogue



#### We are the exclusive manufacturers of Byrket's Improved Dump and Automatic Steel Scrapers.

We manufacture the only successful Automatic Scraper in the world. Our Dumps are the lightest and strongest scrapers made. We use two pieces of steel pressed into shape, is so constructed that we can replace any part at a trifling expense. We make three its of all classes of Earth Workers. Especially suited for i ontractors and Town and for circulars. Manufactured by

THE CHAMPION SCRAPER CO., Troy, Ohio.

# PAYNE

& SON.

WYOMING, PA.,

MANUFACTURERS OF

SOLID PLAIN BACK SHOVELS

AND SPADES.

Regular (Old Style) Back-Strap

Shovels, Spades & Scoops.

Patent Back-Strap

SHOVELS & SPADES.

PATENT SCOOPS

IN TWO STYLES

PATENT CABBAGE HARVESTERS.

&c., &c.

# SHOVELS, **SPADES**

AND SCOOPS Of Superior Quality and Finish, and

Fully Warranted.

Railroad Shovels and Spades. Anthracite Coal

Miners' Shovels. Bituminous Coal

Miners' Shovels.

Gold Miners'.

Silver Miners',

Lead Miners',

Ore Miners'

#### SHOVELS

MINERS' SPADES.

FARMERS' SHOVELS.;

FARMERS' SPADES.

FARMERS' SCOOPS.

Molders' Shovels, Gas Shovels, Lime Shovels, Coffee Shovels, Spring-Point Shovels.

Coal Scoops, Grain Scoops, Furnace Scoops, Trimmers' Scoops, Sawdust Scoops,

Telegraph Post Spoons,

&c., &c.

Special Styles and Sizes made to rder on short notice.

Shipping facilities excellent. No charge for cartage.

EXAMINE THE MERITS OF THE

R. T. PETTEBONE

PATENT

SHOVELS & SCOOPS.

# NEW ENGLAND

MANUFACTURERS OF

DRILLED CAST BUTT HINGES.

CHINESE" LAUNDRY IRONS, SAD IRONS, &c.



"Chinese" Laundry Irons.

These "Chinese" Laundry Irons are of superior quality, made from the best pig iron, highly finished, and rounded on edges, having Wrought-Iron Handles, with neatly molded Tops of Cast Iron.

The Three Sizes, Nos. 1, 2 and 3, correspond in Weight with 4, 5 and 7 lb. Sad Irons.

> **NEW YORK OFFICE:** 99 Chambers St.

FACTORIES: Providence, R. I.

# SAUNDERS' PATENT

FOR BUILDERS' AND FRAMERS'

FOR BUILDERS' AND F.

are universally acknowledged to be superior to all other Boring Machines, and we guarantee to give better satisfaction than any other machine.

Ship Builders, House Builders, Dock Builders, Bridge Builders, Carpenters and Flarmers please notice what we claim for our machine, and we guarantee all thatwe claim: First, that it will do nearly double the work of any other machine in the same length of time, with greater ease to the operator; that we can regulate the speed of the bit according to the size of the same, or to suit the operator; it will drive the bit any required apped; it will drive the bit or auger to any required depth, and the bit or auger returns from the hole by the same automatic motion without the operator stopping the machine; at the same time clearing itself and leaving the hole entirely free from chips; it is gauged to bore such a depth as may suit the operator, oring two or more holes at exactly the same depth after being once set, without any attention from the operator; it is an angular machine and will bore on any angle; it is the most compact form it can be carriedin the hand with the greatest ease and convenience; it is the most durable machine, from the fact that we use the best material in its construction, and each part can be duplicatedin case of accident by send ing directly to us. We finish the ironwork with a baked or heated Japan finish, which enables it to withstand all kinds of weather, the woodwork being rubbed in oil and shellaced. They are the cheapest Boring Machices in the world for what they can do. We are introducing the Gladwin Improved Auger in connection with this machine. This auger is the best Boring Machine Auger made, being a self-clearer in gummy or knotty wood. We offer the Borer, boxed and delivered on board cars, for \$6.80, with full set Gladwin Improved Augers, 18 gra., \$9.50. Whe full set augers, 18 gra., \$9.50. A discount given for large orders. Send for Descriptive Catalogue.



THE W. B. WELLS MFG. CO., Ashaway, R. I.

FOR SALE BY
LOUDERBACK, GILBERT & CO., 33 Chambers St., New York,
FALLMAN & McFADDEN, 607 Market Street, Philadelphia.
BUHL, SONS & CO., Detroit, Mich.
A. W. BINGHAM & CO., Cleveland, Ohiq.
GORDON HARDWARE CO., San Francisco, Cal.
HODGE & HOMER, 47 Handelph Street, Chicage, III.

LOWENTRAUT,



EUREKA CLUB

SOLE AGENTS: SULIB AUSKYEN:

SWITH, SELTZER & CO., Philadelphia, Sole Agents for the State of Pennsylvania,
PAPPENHEIMER HARDWARE CO., Cincinnati, Sole Agents for the State of Ohio.

SIMMONS HARDWARE CO., St. Louis, Sole Agents for the city of St. Louis,
SPENCER & UNDERHILL, 94 Chambers St., New York, Agents for New York City and vicinity.

WM. R. BURKHARD, St. Paul, Minn., Sole Agent for the State of Minneseta.

MECHANICS' TOOLS, GENERAL HARDWARE.

HOUSE FURNISHING GOODS

Shoemakers' Tools. 276, 278, 280, 282 HALSEY STREET, NEWARK, N. J.

V. G. HUNDLEY, N ORTH CAROLINA HANDLE CO.



MANUFACTURER OF Handles and Spokes, and 97 Chambers Street, - - - NEW YORK.
HARDWARE COMMISSION MERCHANT.

T. H. BULLOCK, BELLOWS AND FORCE MANUFACTURER, CLEVELAND, OHIO.

PHILADEL		1
Corrected Weekly by Lloyd, S Ferms, 30 days. For 50 or 90 days.	uppice & Walton.)	
per cent. per an	num.	
Peter Wrights, # b	11 @ 11340	
Eagle Anvils, American, roc	dis 20 %	
Apple Parers	pecial prices	
# Measure # Mann # Mankee Robert Mann # Richland Chief # Richland Chief # Richland E # Richland # R	, per dos \$8.50 @ 0.00	
Bonney's Pat. Hol. Augers, list Stearns' Pat. Hol. Augers, list		
Light and Common	dis 33½ %	
Bevin Bros. Mfg. Co. Light Ha Swiss Pattern Hand Belis Connell's Door Bells Gt. Western & Kentucky Cow	dis 15&10 new listdis 60	
Borins Machines Upright, without Augers Angular, without Augers	List 5.50 dis 45@50 %	
Upright, without Augers. Angular, without Augers. Beits.—Eastern Carriage Bolts Philadelpnia Stanier, Wrought Shutter		
Braces.—Barber'r Backus. Spofford American Ball.	dis 5085 %	
Sutta Cast Fast Joint, Narro	Wdis 40&10&10 %	l
Broad	dis 60% to 4	I
" Mayer's Loose Joint	dis 60&10 %	I
American Ball.  Sutta.—Cast Fast Joint, Narrow  Cast Loose Joint, Narrow  Acorn. Loose Pin  Mayer's Loose Joint.  Wrought Loose Joint.  Table Hinges and B.  Narrow, Fast.  Loose Joint.	dis 55&10 %  ack Flapsdis 50&10 % dis 50&10 % dis 50&10 %	
Parker. Ctark	dis 70&2 %dis 70&2 %dis 70 %	
ChainsGerman Haiter and	Coil. list December 31	
Galvanised Pump. Best Proof Coit Chain—Englif  5 1 2 8 4 7 14 5 15 14 5 16  Chisels.—Socket Framing Bocket Firmer		
Chiscis.—Socket Framing	% 7-16 ½ in.	
Butcher's	\$5.00@\$5.25 to £ gold	
CHREELS Ded (How mas anny )	1, 1000, 1 (118 459850 %	
Plate.    Office Mills. Box and Bid: 1880.   Enterprise. Walden Focket.     Onliery. Walden Focket.     Continue   Contin	dis 20&10 5	
Prawing Knives. Hart Mfg. Co.'s. Adjustable Handle	dis 70 %	-
Tinned	5.50 6.50 7.50 9.00 10.00 4 5 6 8	
Burnished # dom.#3.00 3.75 4.24 4.75 Fo 0 1 2 3	5.25 0.00 7.00 8.00 9.00 4 5 6 7 8	
Nicholson	dia 40 g	-
Nicholson Butcher Fisting Machines. Eagle 3/5 in. roll.  - 5/6 in. roll.  - 6 in. roll.  - 8 in. roll.	2.85 dis 35 f	1
Payorite com Fluter & Sad L	ron # dos #10.50 net	ř
Hammers. Yerkes & Plumb's, new list Maydole Hammers Howell A. E. Naii Hammers,	dis 30 9	6 6 5
Handles. Disston Loop Handles Cross Boynton Loop Handles Cross Hatchets. Yerkes & Plumb, new list	cut33c pair net	t
Hunt		Š
Borse Nails. Nos. 5 6	7 8 0 10 10 10 17 16 dis 1246 1	ç
Vulcan	25 24 23 22 dis 300c10 5	S S
Clinton23	26 25 24 23 dis 30&105 21 20 10 18 dis 30&105	1 1 1 1
Saranac	21 20 19 18 dls 25 3	918
Globe	61 18 <sub>4</sub> 01 61 10,49 61 17,00	000
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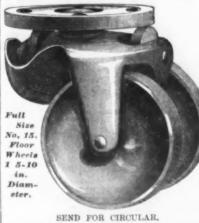
ES

PHILADELIF BIA.	Round Head Iron, new list Dec. 27
Corrected Weekly by Lloyd, Supplee & Wallen.) Ferms, 30 days. For 50 or 50 days, Interest added at 10%	German Silver
per cent. per annum.	Tinneddis 60&10 %
A # #186. Peter Wrights. # b   11 @ 11 4e Over 200 lbs   1.1 4e Trenton   1.0 4 Eagle Anvils, American, 100   dis 20 5	Gem No. 3 small Jap'd
Eagle Anvils, American, 100dis 20 %	Coll No. 'o, per gross net
Apple Parers.  Globe Apple Pearers.  Pen Apple Parers  Lots or 10 to 25 dozen special prices	Standard Spring Hinges— Single No. o per dog not
Lots of 10 to 25 dozen special prices	No. 1. " " 1.50 Other Standard Spring Hinges dis 25&10 %
Hunt's Kentucky and Yankee, per dos \$8.50 @ 9.00 Robert Mann	Stocks and Oles
New   Hunt's   Kentucky and Yankee, per dos   \$8.50 (6 0.00   Robert Mann   \$8.00 (8 0.00   8.00 (8 0.00   8.00   8.00 (8 0.00   8.00	Warner Door Springs, per dos. net.   1.75
Augora and Augor Bits.—New List January 7, 1880.	Shoe Nails—4-8, and over 8c
A serors and A seror Bits.—New List January 7, 1890- Bates' Nut Augers	Pouble Pointed Tacksdis 5025 %
Benjamin Pierce Auger Bitsdis 40 % Griswold Auger Bits	Im. Oneida—Newhouse list. first qualdis 60 % 65 %
Cook's dis 10, 10810 %	Wrenches.—Agricultural
Stearns' Pat. Hol. Augers, list \$45 \(\psi\) dos. dis 20&10 \(\psi\) Balances.	Traps   Genuine Oneida—Newhouse
Light and Commondis 33½ %	### Wire.    Bright or Ann'd, No. c to 18.   dla 62\squares 62.
Bevin Bros. Mfg. Co. Light Hand Bellsdis 70&10 % Swiss Pattern Hand Bells	Coppered, e to 18
	Gaivanized Barb Wire. dis 57%600 7
Boring Machines Upright, without AugersList 5-50 dia 15-25-5	Galvanized No. 7 to 18 Market List, dis 1734 (6.00)
Upright, without Augers. List 550 dis 45800 % Angular, without Augers 67,75 dis 45800 % Angular, without Augers 67,75 dis 45800 % Philadelphia 6800 90 Philadelphia 6800 90 % Philadelphia 6800 90 % Philadelphia 6800 90 % Wrought Shutter 6800 90 % 90 % 90 % 90 % 90 % 90 % 90 % 9	Wringers   \$12.00
Stanier, Wrought Shutterdis 50210 %	Novelty No. 2, for common tubs.
Backus dis 50% %	Excelsior E, for stationary tubs,
Stanier, Wrought Shutter   dis coare	In lots of 1 doz. \$6.00 doz. dis. from above prices.
Cast Loose Joint, Narrowdis 40&10&10 %	PITTSBURGH.
Acorn. Loose Pin	Merchant Iron. TERMS.—Note or acceptance at 60 days, with curren
" Mayer's Loose Joint dis 50%10 % Wrought Loose Pin dis 50%10 %	cent. for cash, if remitted within to days from date of
** Table Hinges and Back Flapsdis co210 \$  ** Narrow. Fast	invoice.
Blind Butts.	on card rates see weekly Pitts- burgh Trade Report.
Parker         dis 70&2 %           Clark         dis 70&2 %           Shepard         dis 70 %           Luit & Porter         dis 70 %	The following are card rates.
Luit & Porter	136 to 4 by % to 1 inch
Chains -German Halter and Coll. Hat December as	134 to 6 by 134 to 134 "
Best Proof Coli Chain—English.	% % and % by % to % inch
Best Proof Coli Chain—English.  **Bo	1 to 1362.50   % fo g-162.70   % to 7-162.9
Chisels.—Socket Framing	For fluctuations and discounts on card rates see weekly Pitts-burgh Trade Report.  The following are card rates.
Casters.—Bed (new list July 1, 1880.)dis 45/650 \$	% to %
()effee Mills,—Box and Bide, new list Jan. die sos	34 to 134
Enterprise	% to 14 inch
Landers, Frary & Clark, J. Russell & Co., Lamson & Goodnow Mfg. Co. and Meriden Cutiery Co., Manu-	16 to 116 by 5-16 to 16 inch.
facturers' prices net.  Orawing Knives.	Inch. Nos. 13 and 14
Casters.—Bed (new last July 1, 1880.)	13 and 14
Tinned	" 11 and 12
Burnished dis 60, 10 & 5 %	316 to 6 by 16 and 5-16 inch. 2.7
FO 0 1 3 3 4 5 6 7 8	1 to 1% by 14 and 5-10
Nicholsondis 40 %	114 to 6 by 16 to 3-16
Finting Machines.	1% to 5% by Nos. 11 and 12
" — 536 in. roll	% and 13-16 by 1/4 to 3-16
	and 11-16 by Nos. 11 and 12
Favorite com Fluter & Sad Iron # don \$10.50 net	and o-10 by Nos. 11and 12
Hammers. dis 30 g Maydole Hammers. dis 15 g Howell A. E. Naii Hammers, per doz. net \$3.75	inch by Nos vi and 12
Handles. Disston Loop Handles Crosscut33c pair net Boynton Loop Handles Crosscut3c pair net	154 to 2, Nos. 16, 17 and 18
	14 to 2, No. 20.
Yerkes & Plumb, new list	15-10 1, and 156. Nos. 13, 14 and 15.
Hinges Stap and T	14-16. 1. and 134, Nos. 19 and 20
Vulcan	15-10, 1, and 196 NO. 22 76, Nos. 13, 14 and 15.
" Pol'ed and P't'd & Blued & P't'd31 28 26 25 24 23 dis 30&105	\$4, Nos. 19 and 30
Pol'ed and P't'd. 31 28 25 24 23 dis 30 kt of Clinton. 21 21 20 19 18 dis 30 kt of Saranac. 25 23 24 20 19 18 dis 25 28 Earnac. 26 23 24 20 19 18 dis 25 28 Earnac. 26 23 24 20 19 18 dis 25 28 Earnac. 27 28 29 29 29 29 29 29 29 29 29 29 29 29 29	12-16 Nos. 13, 14 and 15.
Lightningper doz, net \$18.00	13-16, No. 21
Lightning	1 84. Nos. 15, 14 and 15.
Branfordnew list dis sock 2 \$ cash	Nos. 19 and 20.
Gavlord Cablinet	14, NO. 22.
WO \$7 58 59 60 61 62 63 dis 60 9	11-16. Nos. 19 and 20
% dos	11-15, No. 22.
Buckeye	Nos. 19 and 20
Guards, 40cents extra.  Lawn Wewers.—Pennsylvania	% No. 23.
No Laureriss. Buckeys. Buckeys. No. 0, \$7.50; No. 1, \$9.50 % dos net Guards, accents extra. Lawn flig overs.—Pennsylvania. Philadelphia. Excelsion Glardes Pumps. Holland Patent. List \$5.00 dis 10 5	\$\frac{1}{34}\$, Nos. 16, 17 and 18 \$\frac{1}{34}\$, Nos. 16, 17 and 18 \$\frac{1}{34}\$, Nos. 19 and 20. \$\frac{1}{36}\$, No. 21. \$\frac{1}{34}\$, Nos. 22, 14 and 15, \$\frac{1}{11-16}\$, Nos. 15, 17 and 18 \$\frac{1}{34}\$, 11-16, Nos. 16, 17 and 18 \$\frac{1}{34}\$, 11-16, Nos. 16, 17 and 18 \$\frac{1}{34}\$, Nos. 17, 14 and 15, \$\frac{1}{36}\$, Nos. 18, 17 and 18 \$\frac{1}{36}\$, Nos. 18, 17 and 18 \$\frac{1}{36}\$, Nos. 19, 14 and 15, \$\frac{1}{36}\$, No. 21. \$\frac{1}{36}\$, No. 23. \$\frac{1}{36}\$, No. 23. \$\frac{1}{36}\$, No. 23. \$\frac{1}{36}\$, No. 23. \$\frac{1}{36}\$, No. 33. \$\frac{1}{36}\$, No. 33. \$\frac{1}{36}\$, No. 33. \$\frac{1}{36}\$, No. 33. \$\frac{1}{36}\$, No. 35. \$\frac{1}{36}\$, No. 36. \$\frac{1}{36}\$, No. 37. \$\frac{1}{36}\$, No. 35. \$\frac{1}{36
IFE IN COLUMN TO THE PARTY OF T	9-16, No. 21
Pennsylvania Patteradis 50 5	16 inch, Nos. 13, 14 and 15
Enterprise Mrg. Co.'s Measuring succes.dis 20210 5	Nos. 19 and 20
Landers. Frary & Clark's Petroleumdis 20&10 9 Brass Liquor Cocks, new list Jan. 1 188a. dis 55	No. 22
Long and snort Cutters	Ties. 1-100 per lb. extra will be charged for each gau.
Woodruff	1-100 per lb. extra will be charged for each gau lighter than the lightest indicated. 1-100 per lb. extra will be charged for cutting floo to specified lengths.  Burrel Hoops.  Is to 2 in. cut to length
Hale's new list, dis 50, 10&2 asi American	Barrel Hoops.
Enterprise Stuffers	8 lbs. and less than 9 lbs. per set of 6 hoops3
Ogontsdis 25	Barrel Hoops.  1 to 11 lbs. per set of 6 hoops.  2 to 11 lbs. per set of 6 hoops.  3 lbs. and less than o lbs. per set of 6 hoops.  4 Less than lbs. per set of 6 hoops.  5 Extras for Cutting to Length all Preceding Iron.  4 Il Iron, including Tire.  5 No. 9 and heavier.  5 Plow Slabs.
Plane Trons.—Ohio Tool Co	No. 9 and heavier
Plumbs and Levels.  Stanley's Adjustable	Wings Sheet from.
PicksNew list	
Statement of making them	No. 10 to 14 3.50 5.00 6
Lamont Combination	6 No. 10 to 14
Lamont Combination Per 101. \$4.0  Imitation Emerson Pr doz. 2.0  Rutes.—Stanley Boxwood dia 70 tion Stanley Vory dia 82	\$ No, 9 and heavier
Stanley Ivory	and Makes and Makes
Steetyards.—Hart's Patterndis 40620	and Makes and Makes
## Ost. ## Ost	All shee.s No. 18 and lighter, over 30 inches with not less than 2.10c extra.
## Ost. ## Ost	All shee.s No. 18 and lighter, over 30 inches with not less than 2.100 extra.   Wood's Fatent Plantshed Sheet.   1st quality (A).   1.10\( \)   2d quality (B).   9   Gafcantsed C. H. B.—(Charcool Hammered Blooms Nos. 14 to 30.   120   No. 27   No. 31 to 34.   130   No. 21 to 34.   130   No. 21   No. 25 and 20.   140   No. 25   No. 2
## of the first state of the fir	All shee.s No. 18 and lighter, over 30 inches with not less than 2.100 extra.   Wood's Fatent Plantshed Sheet.   1st quality (A).   1.10\( \)   2d quality (B).   9   Gafcantsed C. H. B.—(Charcool Hammered Blooms Nos. 14 to 30.   120   No. 27   No. 31 to 34.   130   No. 21 to 34.   130   No. 21   No. 25 and 20.   140   No. 25   No. 2
## of the first state of the fir	All shee.s No. 18 and lighter, over 30 inches with not less than 2.100 extra.   Wood's Fatent Plantshed Sheet.   1st quality (A).   1.10\( \)   2d quality (B).   9   Gafcantsed C. H. B.—(Charcool Hammered Blooms Nos. 14 to 30.   120   No. 27   No. 31 to 34.   130   No. 21 to 34.   130   No. 21   No. 25 and 20.   140   No. 25   No. 2
Steet yards.—Hart's Pattern dis octro:  \$\psi \text{dos} \times \text{is}_1 \times \frac{1}{2} \times \frac{1} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{	All shee-a No. 18 and lighter, over 30 inches with not less than 2.100 extra.  In other less than 2.100 extra.  Is quality (a). 1.0%[= 36] quality (B). 9  Galvanized C. H. B.—(Charcoal Hammered Blooms Nos. 14 to 26. 120   No. 27. Nos. 27 to 24. 130   No. 28. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10
Steet yards.—Hart's Pattern dis octro:  \$\psi \text{dos} \times \text{is}_1 \times \frac{1}{2} \times \frac{1} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{	All shee-a No. 18 and lighter, over 30 inches with not less than 2.100 extra.  In other less than 2.100 extra.  Is quality (a). 1.0%[= 36] quality (B). 9  Galvanized C. H. B.—(Charcoal Hammered Blooms Nos. 14 to 26. 120   No. 27. Nos. 27 to 24. 130   No. 28. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10
Steet yards.—Hart's Pattern dis octro:  \$\psi \text{dos} \times \text{is}_1 \times \frac{1}{2} \times \frac{1} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{	All shees No. 18 and lighter, over 30 inches with not less than 2.100 extra.  If you will be a strate that the strategy of the
Steet yards.—Hart's Pattern dis octsot  \$\psi\$ doss. \$\psi_1, \phi_2\$ 17.75 21.00 25.49 31.00 34.6  Lbs. \$0 160 150 300 20 30  American Pattern. dis \$\phi_2\$ 13.75 15.50 15.75 19.5  Lbs. \$0 100 150 300 20 20  Samres.  Steel and Iron. dis \$\phi_2\$ 13.75 15.50 15.75 19.5  Lbs. \$0 100 150 300 20 20  Samres.  Steel and Iron. dis \$\phi_2\$ 17.75 19.6  Steel and Iron. dis \$\phi_2\$ 17.75 20 20  Typ Squares. dis \$\phi_2\$ 10.25 20  Typ Squares. dis \$\phi_2\$ 20  Seythes.—Golden Clipper. Damasons Blade, Boxen and Sharpened.  Clipper No. 10, Bronsed Blade, Boxed and Sharpened.  Sharpened. W dos \$\phi_2\$ 20  Clipper No. 5, Painted Red, Boxed and Sharpened.  Sharpened. W dos \$\phi_2\$ 20  Clipper No. 5, Painted Red, Boxed and Sharpened.  Sharpened. Tooth dis \$\phi_2\$ 20  Cross-Cut No. 2, Plain Tooth dis \$\phi_2\$ 20  Coss-Cut No. 2, Plain Tooth dis \$\phi_2\$ 20  Coss-Cut No. 2, Plain Tooth dis \$\phi_2\$ 20  Boynton's Lightning Cross Cut, new list. dis \$\phi_3\$ 20  Boynton's Lightning Cross Cut, new list. dis \$\phi_3\$ 20	All shees No. 18 and lighter, over 30 inches with not less than 2.100 extra.  If you will be a strate that the strategy of the
Steet yards.—Hart's Pattern dis octsot  \$\psi\$ doss. \$\psi_1, \phi_2\$ 17.75 21.00 25.49 31.00 34.6  Lbs. \$0 160 150 300 20 30  American Pattern. dis \$\phi_2\$ 13.75 15.50 15.75 19.5  Lbs. \$0 100 150 300 20 20  Samres.  Steel and Iron. dis \$\phi_2\$ 13.75 15.50 15.75 19.5  Lbs. \$0 100 150 300 20 20  Samres.  Steel and Iron. dis \$\phi_2\$ 17.75 19.6  Steel and Iron. dis \$\phi_2\$ 17.75 20 20  Typ Squares. dis \$\phi_2\$ 10.25 20  Typ Squares. dis \$\phi_2\$ 20  Seythes.—Golden Clipper. Damasons Blade, Boxen and Sharpened.  Clipper No. 10, Bronsed Blade, Boxed and Sharpened.  Sharpened. W dos \$\phi_2\$ 20  Clipper No. 5, Painted Red, Boxed and Sharpened.  Sharpened. W dos \$\phi_2\$ 20  Clipper No. 5, Painted Red, Boxed and Sharpened.  Sharpened. Tooth dis \$\phi_2\$ 20  Cross-Cut No. 2, Plain Tooth dis \$\phi_2\$ 20  Coss-Cut No. 2, Plain Tooth dis \$\phi_2\$ 20  Coss-Cut No. 2, Plain Tooth dis \$\phi_2\$ 20  Boynton's Lightning Cross Cut, new list. dis \$\phi_3\$ 20  Boynton's Lightning Cross Cut, new list. dis \$\phi_3\$ 20	All shees No. 18 and lighter, over 30 inches with not less than 2.100 extra.  If you will be a strate that the strategy of the
Steet yards.—Hart's Pattern dis gotto:  \$\psi \text{dos} \times \text{3.1.4} \times \text{1.75} \times \text{2.100} \times \times \text{3.100} \times \text{3.1.4} \times \text{3.100} \times \times \text{3.100} \times \text{3.100} \times \times \text{3.100} \times \text{3.100} \times \times \text{3.100} \t	All shees, No. 18 and lighter, over 30 inches with not less than 2.100 extra.  St quality (A) 10/6   2d quality (B) 9  Galvantsed C. H. B.—(Charcoal Hammered Blooms Nos. 14 to 20 12c   No. 2 Nos. 21 to 24 13c   No. 2 12c   No. 2
Steet yards.—Hart's Pattern dis gotto:  \$\psi \text{dos} \times \text{3.1.4} \times \text{1.75} \times \text{2.100} \times \times \text{3.100} \times \text{3.1.4} \times \text{3.100} \times \times \text{3.100} \times \text{3.100} \times \times \text{3.100} \times \text{3.100} \times \times \text{3.100} \t	All shees, No. 18 and lighter, over 30 inches with not less than 2.100 extra.  St quality (A) 10/6   2d quality (B) 9  Galvantsed C. H. B.—(Charcoal Hammered Blooms Nos. 14 to 20 12c   No. 2 Nos. 21 to 24 13c   No. 2 12c   No. 2
Steet yards.—Hart's Pattern dis gotto:  \$\psi \text{dos} \times \text{3.1.4} \times \text{1.75} \times \text{2.100} \times \times \text{3.100} \times \text{3.1.4} \times \text{3.100} \times \times \text{3.100} \times \text{3.100} \times \times \text{3.100} \times \text{3.100} \times \times \text{3.100} \t	All shees, No. 18 and lighter, over 30 inches with not less than 2.10c extra.  St quality (A) 10/6/2 3d quality (B)
Steet yards.—Hart's Pattern dis gotto:  \$\psi \text{dos} \times \text{3.1.4} \times \text{1.75} \times \text{2.100} \times \times \text{3.100} \times \text{3.1.4} \times \text{3.100} \times \times \text{3.100} \times \text{3.100} \times \times \text{3.100} \times \text{3.100} \times \times \text{3.100} \t	All shees, No. 18 and lighter, over 30 inches with not less than 2.10c extra.  St quality (A) 10/6/2 3d quality (B)
Steet yards.—Hart's Pattern dis gotto:  \$\psi \text{dos} \times \text{3.1.4} \times \text{1.75} \times \text{2.100} \times \text{5.1.6} \times \text{1.75} \times \text{2.100} \times \text{5.100} \times \tex	All shees No. 18 and lighter, over 30 inches with not less than 2.10c extra.  St quality (A) 10/6c   2d quality (B)

Drag Bars
Dropper Bars
Cylinder and Landside Iron.
dis 45 5 Flow Beam Iron

45 %	See Pittsburgh Trade Report.	-
RES S	Best Quality Refined Unst Steel.   Square Fict. Octagon and Round.   100   1-16 and 25/4 to 3 nones   110   44 and 34/4 to 4   120   44 and 34/4 to 4   120   44 and 34/4 to 4   120   1	Į
8 4 % 60 %	Square. Flat. Octagon and Round.	
10 %	1-16 and 214 to 3 nones	I
90 %	4 and 3\( \) 100 4 120 7-32 and 4\( \) 100 5 100 100 100 100 100 100 100 100 1	۱
10 % \$6.00	5-32 inch	١
2013	Oil Well Steel Forgingsxc	1
1.75	Machinery Steel. Bessemer &	
1.25	Crucible, Open Hearth	
10 %	Round 5360 40	1
8 10%	5-16 and 25 to 3 inches 612c 5c 5c 5c 6c	n
net kio %	Ordinary States % to 2 inch Round	a.
10 %	list.	)
A4.5	Flamman Clark Street	2
355	Crucible Cast Steel	
454	Sheet Steel.—Cruoibie.	4
D&3 %	Boot ad Onel ad Onel Oceanier &	
975 S	To at gauge ite to be 1/c extra for each additional gauge, Cut to multiples or specified lengths, 1/c, extra.	
364 %	Muscellaneous Cast Steel.	-
265 %	Axle Steel for carriages and wagons	4
5736 X	Frog Points and Plates	1
.7%C	Pick, plain (hammered)	
	Auger and Auger Bit. 6c Axie Steel for carriages and wagons. 6c Frog Points and Plates 7c Bitle Bars. 6c Pick Inth Inhammered. 7c Bitle Bars. 7c Bars.	
\$42.00 45.00	Table Cutlery, bevelea	
42,00	Coal and Granite Wedge8c	
48,00	Spingle, subject to Machinery classification	
51.00 57.00	Forked Crank Pins and Lathe Spindies	
37.00	Spinies studies to Machinery classification. 76 Tran Spring Steel 9 Forsed Crank Pins and Lathe Spindies 8 Filton Roas, Diain 6 Forsed to shapes 5 Forsed to shape 5 Forsed to	
	" forged to shapes	
	Boller Pine Por and Eller Street,	
rrent	thick.  5-bc Boiler, Fire-Box and Flue Sheets, not less than 3-bc thick.  5-bc Circulars and semi-circulars, when ordered separ- ately.	
a per ste of	thick.	
nts	ately	
tts-	ately 8c Smoke Stack. to shape 7c Locomotive Tank Steel 51	
	File Cast Steck	
2.50	Square   Round   Haif Round and Flas Bastard   8   Inch and over   6.3   Mill Saw. 6-inch and over   6.5   Mill Saw. 6-inch and over   75   6   Mill Saw. 6-inch and Shoe Rasp   6   Mill Saw. 6-inch and Saw.	
2.0C	Taper, 316-inch and over	
2.90 2.60 2.70	Spring Cast Steel	
.3.98	Spira Taper, cut to lengths	
2.70 2.90	IXM and over	
3.1C	1 and 13-10x34 and 5-32. %x3-16 and 4-32 0360	
3.30 3.50	Solid Safe Cast Steel	1
	IXM and over	
3.30 3.70	Fork and Rake, Crucibie be Horse Rake Steel cut to lengths, Crucible 76 Hoe, Crucible 60 Corn Stalk Cutter, beveled 60 Beveled Hoe and Shovel Steel in Hars 60 Crucible Plow Steel in slabs 60 Crucible Plow Steel in slabs 60	
4.00	Hoe. Crucible	
5.50	Beveled Hoe and Shovel Steel in Pars 6c Crucible Piow Stee' in slabs. 6c	
3.50	Spring	
3-7C	Tire.: -10 thick and above	ľ
4.00 3.80	Toe Calk	
4.4C	Axle Billets40	
2.70	Prov	
2.7C	Grain Drill Bars	
3.58	Rolling Coulter Blanks, cut and punched	
3.00	Rolled Hammer Billets	
3.10	Terms Four months : a per cent, discount for cash,	
3.20	if remitted within to days.  Realis and Castings. Furnace Floor and Straightening Plates. Housings and Castings not otherwise specified.  Story Guide Plates. Story Guide Plates. Story Guide Plates. Story Guide Plates.	1
3.50 3.70 3.80	Housings and Castings not otherwise specified240	-
4.0C	Spindles and coupling boxes	I
4-10	Band Holls and Pinions, large size	l
4-40	Rolling Mill Castings under to lbs C	1
3.40	Spur and Bevel Wheels, large	l
3.40 .3.50 3.60	Pulleys up to 30 inches	ł
2.80	h heavy	١
3.40	6 to In. diam., to 20 in. long.	ı
3.70	8 to 15 tn. 65 8 to 40 in. 65	1
2. QC	After Oct. 1881, no discounts with he made at set	ł
3.70 3.80	White and fled Lead	1
4.10		1
4.00	m Tin Palis, %c. w m over keg price: 12% h Tin	1
4.10	1c. Der m over Keg price	1
4-30	Red Lead, very brilliant, in gegs, be; in barrels 55(c	1
4.10	Freights equalized with all points where White	1
4.30	Terms: Note at sixty days, or if paid within 15 days	1
440 ju36	be anowed, but not otherwise.	1
4-36	Discount to don Wasta Classouth to day Double	
4.00		
4-44	Bingle Strength.	-
4.60	Bize. AA. A B. C.	1
4.00	5 X 8 to 10 X 15	1

Terms.—Four months: a per c if remitted within a days.  Rells and Cas	ent. d	iscour	t for c	Ban,
if remitted within a days.  Reblis and Cas.  Rurnace Phor and Straighteni Housiness and Castings not othe Guide Plates.  Spindies and coupling boxes.  Sand kolls and Philons. large s Band kolls and Philons. large s Pice Mill Castings small size.	ng Pia erwise	speci	ned	2940 3340 2580 3560
Pipe Mill Castings	bs			.5 C
Pipe Mill Castings under to laborate Milliam Mill Castings under to laborate Milliam Milliam Milliam Meets and Bevel Wheels, large.  Pulleys up to 30 inches.  over 30 inches.  Engine Castings light.  heavy.				-4560 -4560 -4 C
6 to in diam. to 20 in long 8 to 15 in	lla. E			416e
6 to in diam. Catiled Rol 5 to 15 th. 6 to 20 in lon 6 to 15 th. 6 to 20 in lon 6	s win	be m	ade at	4c
White and Re Strictly Pure White Lead in D Tin Pails, 14c. Who over Pails, 10 Whover keep price;				
Palls, ic \(\pi\) b over keg price; oc. per \(\pi\) ever keg price Dry White Lead in barrels Red Lead, very brilliant, in \(\pi\) Litharge (Potter's Lead); Freights equalized with all	assor	in he	o s B	6941
Terms: Note at sixty days, or from date of invoice a discount be alsowed, but not otherwise.  Window Q		16 Per	hin 15	Will
Discount, to % on Single Stres	ngth, 6	5 øn	Doub	le.
Single Stren	AA.	A	B.	O.
6 x 8 to 10 x 15	88.25		-	86.50
	9.25	87.50 8.50 9.75	\$7.00 8.00 8.75	7.25
11 X 14 CO 10 X 24.  18 X 24 CO 20 X 30.  15 X 36 CO 24 X 30.  26 X 28 EO 24 X 36.  26 X 36 EO 26 X 44.  26 X 36 EO 30 X 50.  30 X 52 EO 30 X 55	13.35	11.50	9.00	8,40
36 x 36 to 26 x 44	14.50	13.25	9-75	9.00
26 X 46 to 30 X 50	15.00	14.00	11.25	10.40
40 X 56 to 34 X 56	17.25	15.50	13.50	
90 X 52 t0 30 X 54	20,75	17.25	15.00	
	12.75	11.75		
6 x 8 to 10 x 15	14.50	13-25	12.50	10.00
	17.35	19.79	14.00	
26 x 26 to 24 x 36	31,00	17.35	15.75	
26 X 46 to 20 X 44	23.25	21.25	18.00	
16 x 22 16 20 x 39	25.75	23.25	10.31	
	27.75 29.25	85,00 37.75	21.75 24.00	
35 x 60 to 40 x 60	33-25	30.00	37.75	
An additional to per cent. glass more than 40 inches wi inches in length and not maki inches, will be charged in the 8	will b	e cha il size re tha ed inch	rged for about 81 un	or all ve çı nited cket,
Hubbard, Bakewell	Az Co	.'a G	oods.	
Axes, Single Bit, Lippincott	****	Pe	r dos.	7.00
Axes, Single Bit, Lippincott  James & Co  Double Bit, Lippincott  James & Co  James & Co			60	15.00
EXTRONOR & SHEEDERN		400000	D	III. 55%
" Scovill Pattern Handled, Square Eye, G Handles, Cross Cut Shovel, Bent, Bored,	erman		d	is 40%
Handles, Cross Cut	Rivet	od. P	HOOE	83.00
Saws, Circular	******	*****	d	18 45%
Cross Cut. H. H. & Co.	Chami	don, I	er ft.	in 40%
Saws, Circular	The same	ton 1	Son 8	80.35
net	namp	HOU. I	MA ANA	.70
Shovels, list			d	in 20%
Spades, "			d	in 205
	10 F F		636	A 20
Entirely new, being stan	TH.		CC	)L



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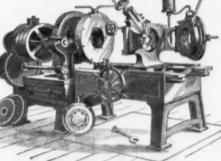
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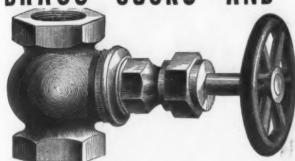
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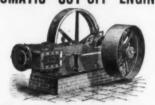
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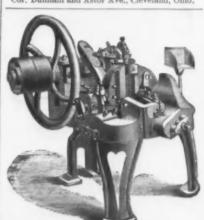
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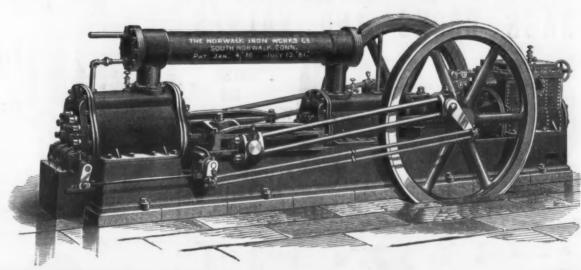
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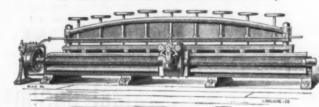
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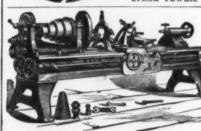
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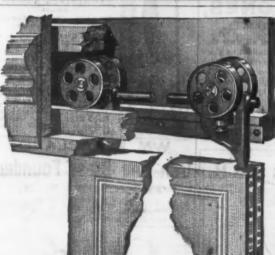
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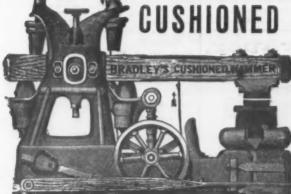
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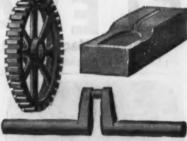
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